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The Bulletin of the University of Minnesota

*The College of Education
Announcement for the Year
1917-1918*



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Vol. XX No. 44 September 24 1917*

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UNIVERSITY OF MINNESOTA

MAP OF THE MAIN CAMPUS

Scale of Feet

100 200 300 400 500

TROLLEY LINE TO UNIVERSITY PARK

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WHEEL TENNIS COURTS

GREAT NORTHERN R.R.

DRIFT HOUSE

MINC HALL

BAR

TENNIS COURTS

EDUCATION

LAW

CAMPUS HOUSE

PAID PARKING

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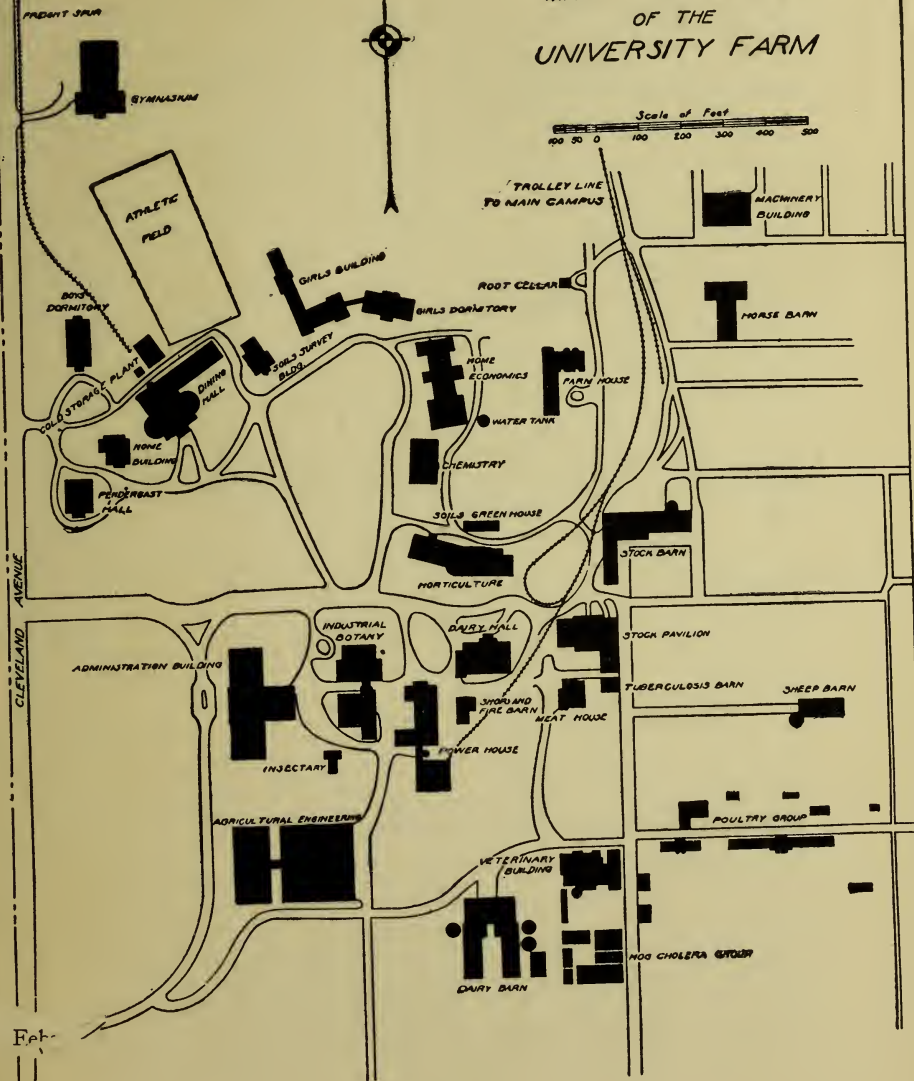
Area of Main Campus, 108.5 acres

UNIVERSITY OF MINNESOTA

MAP OF THE CAMPUS OF THE UNIVERSITY FARM



Scale of Feet
100 50 0 100 200 300 400 500



Area of University Farm, 422.56 acres

1917							1918						
JULY							JANUARY						
Su	Mo	Tu	W	Th	Fr	Sa	Su	Mo	Tu	W	Th	Fr	Sa
1	2	3	4	5	6	7	..	..	1	2	3	4	5
8	9	10	11	12	13	14	6	7	8	9	10	11	12
15	16	17	18	19	20	21	13	14	15	16	17	18	19
22	23	24	25	26	27	28	20	21	22	23	24	25	26
29	30	31	..	..	..	..	27	28	29	30	31	..	..
..
AUGUST							FEBRUARY						
..	..	..	1	2	3	4	..	..	..	1	2	..	..
5	6	7	8	9	10	11	3	4	5	6	7	8	9
12	13	14	15	16	17	18	10	11	12	13	14	15	16
19	20	21	22	23	24	25	17	18	19	20	21	22	23
26	27	28	29	30	31	..	24	25	26	27	28	..	..
..
SEPTEMBER							MARCH						
2	3	4	5	6	7	8	3	..	4	5	6	7	8
9	10	11	12	13	14	15	10	11	12	13	14	15	16
16	17	18	19	20	21	22	17	18	19	20	21	22	23
23	24	25	26	27	28	29	24	25	26	27	28	29	30
30	..	..	..	..	..	..	31	..	..	..	..	..	..
OCTOBER							APRIL						
7	8	9	10	11	12	13	..	1	2	3	4	5	6
14	15	16	17	18	19	20	7	8	9	10	11	12	13
21	22	23	24	25	26	27	14	15	16	17	18	19	20
28	29	30	31	21	22	23	24	25	26	27
..	28	29	30
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NOVEMBER							MAY						
4	5	6	7	8	9	10	5	6	7	8	9	10	11
11	12	13	14	15	16	17	12	13	14	15	16	17	18
18	19	20	21	22	23	24	19	20	21	22	23	24	25
25	26	27	28	29	30	..	26	27	28	29	30	31	..
..
DECEMBER							JUNE						
2	3	4	5	6	7	8	2	3	4	5	6	7	8
9	10	11	12	13	14	15	9	10	11	12	13	14	15
16	17	18	19	20	21	22	16	17	18	19	20	21	22
23	24	25	26	27	28	29	23	24	25	26	27	28	29
30	31	..	..	..	..	..	30	..	..	..	..	..	..
JULY							SEPTEMBER						
..	..	..	..	..	..	..	1	2	3	4	5	6	7
8	9	10	11	12	13	14	8	9	10	11	12	13	14
15	16	17	18	19	20	21	15	16	17	18	19	20	21
22	23	24	25	26	27	28	22	23	24	25	26	27	28
29	30	31	29	30
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UNIVERSITY CALENDAR

1917-1918

1917

September	26	Wednesday	Registration closes for all students
September	26	Week	Fees payable for all students
October	3	}	First semester evening extension classes begin
October	1		
October	2-9	Week	Examinations for removal of conditions (except for Colleges of Agriculture and Forestry), and entrance examinations
October	10	Wednesday	First semester begins
October	15	Monday	Agricultural College, farm experience examinations
October	18	Thursday	School of Agriculture, first term begins
October	29	Monday	Senate meeting, 4:00 p.m.
November	5	Monday	Dairy School opens
November	28	Wednesday	Thanksgiving recess begins 9:00 p.m.
December	1	Saturday	Dairy School closes
December	3	Monday	Thanksgiving recess ends 8:00 a.m.
December	3-8	Week	Second semester condition examinations, Colleges of Agriculture and Forestry
December	3-8	Week	Short course for ice-cream makers
December	5	Wednesday	Medical School second quarter begins
December	20	Thursday	Senate meeting, 4:00 p.m.
December	21	Friday	School of Agriculture, first term closes
December	21	Friday	Christmas vacation begins 9:00 p.m.
1918			
December	31	}	Farmers' and Home Makers' Week Short Course
January	5		
January	2	Wednesday	Christmas vacation ends 8:00 a.m.
January	2	Wednesday	School of Embalming begins, eight weeks' session
January	8	Tuesday	School of Agriculture, second term begins
January	25	Friday	First semester evening extension classes close
February	4	Monday	Second semester registration closes
February	4	Monday	Second semester evening extension classes begin
February	4-9	Week	Merchants' Short Course
February	11	Monday	Final examinations begin
February	11	Monday	Payment of fees for second semester closes

February	12	Tuesday	Lincoln's Birthday; a holiday
February	18	Monday	Second semester begins
February	21	Thursday	Senate meeting, 4:00 p.m.
February	22	Friday	Washington's Birthday; a holiday
March	27	Wednesday	School of Agriculture closes
March	28	Thursday	Easter recess begins 9:00 p.m.
April	1	Monday	Easter recess ends 8:00 a.m.
April	1-6	Week	Boys' and Girls' Week
April	1-6	Week	Condition examinations in certain colleges
April	15	Monday	Medical School fourth quarter begins
April	30	Tuesday	Traction Engineering Short Course begins
May	16	Thursday	Senate meeting, 4:00 p.m.
May	24	Friday	Second semester evening extension classes close
May	30	Thursday	Memorial Day; a holiday
May	31	Friday	Traction Engineering Short Course closes
June	8	Saturday	Final examinations begin 2:00 p.m.
June	15	Saturday	Second semester closes
June	16	Sunday	Baccalaureate service
June	17	Monday	Senior Class Day exercises
June	19	Wednesday	Alumni Day
June	20	Thursday	Forty-sixth Annual Commencement
June	21	Friday	Summer vacation begins
June	24	Monday	Summer Session begins

The University year for 1918-19 will begin Tuesday, September 17. Classes will begin September 25.

COLLEGE OF EDUCATION

FACULTY

- MARION LEROY BURTON, Ph.D., D.D., LL.D., President 1005 S. E. 5th St.
 CYRUS NORTHROP, LL.D., President Emeritus 510 10th Ave. S. E.
 LOTUS D. COFFMAN, Ph.D., Dean and Professor of Education
 1115 E. River Road
 EDWARD E. NICHOLSON, M.A., Dean of Student Affairs 914 S. E. 7th St.
 GEORGE N. BAUER, Ph.D., Professor of Mathematics 1201 E. River Road
 WILLIAM O. BEAL, Ph.D., Assistant Astronomer 1082 16th Ave. S. E.
 WILBUR H. BENDER, M.Di., Ph.B., B.S. in Agr.Ed., Associate Professor
 of Agricultural Education 2121 Como Ave. W., St. Paul
 JOSEPHINE T. BERRY, M.A., Professor of Nutrition
 2176 Scudder Ave. S. E.
 GISLE BOTHNE, M.A., Professor of Scandinavian Languages
 619 9th Ave. S. E.
 LOUIS J. COOKE, M.D., Director of Physical Education for Men
 909 S. E. 6th St.
 HARDIN CRAIG, Ph.D., Professor of English 2725 Humboldt Ave. S.
 HENRY A. ERIKSON, Ph.D., Professor of Physics 424 S. E. Harvard St.
 JOHN HENRY GRAY, Ph.D., Professor of Economics 412 S. E. Walnut St.
 MELVIN E. HAGGERTY, Ph.D., Professor of Educational Psychology
 70 Seymour Ave. S. E.
 JOHN CORRIN HUTCHINSON, B.A., Professor of Greek Emeritus
 3806 Blaisdell Ave.
 CLARENCE M. JACKSON, M.S., M.D., Professor of Anatomy
 436 S. E. Harvard St.
 DAVID L. KIEHLE, LL.D., Professor of Education Emeritus
 226 58th St. E., Portland, Oregon
 WILLIAM H. KIRCHNER, B.S., Professor of Drawing and Descriptive
 Geometry 722 10th Ave. S. E.
 FREDERICK KLAEBER, Ph.D., Professor of Comparative Philology
 619 9th Ave. S. E.
 AUGUST C. KREY, Ph.D., Assistant Professor of History
 939 14th Ave. S. E.
 WINFORD P. LARSON, M.D., Associate Professor of Bacteriology
 614 9th Ave. S. E.
 DEXTER D. MAYNE, Professor of Agricultural Pedagogics
 1403 Cleveland Ave., St. Paul
 WILFORD S. MILLER, Ph.D., Assistant Professor of Education and Princi-
 pal of the University High School 1205 S. E. 7th St.
 J. ANNA NORRIS, M.D., Director of Health and Physical Education for
 Women 509 S. E. 6th St.

- EVERETT WARD OLMSTED, Ph.D., Professor of Romance Languages
2727 Lake of Isles Blvd.
- JOSEPH B. PIKE, M.A., Professor of Latin
1025 S. E. 6th St.
- CHESSLEY JUSTIN POSEY, M.S., Assistant Professor of Geography
1627 Melbourne Ave. S. E.
- ALBERT W. RANKIN, B.A., Professor of Education
916 S. E. 5th St.
- CARL O. ROSENDAHL, Ph.D., Professor of Botany
2191 Commonwealth Ave., St. Paul
- CHARLES A. SAVAGE, Ph.D., Professor of Greek
618 10th Ave. S. E.
- WILLIAM A. SCHAPER, Ph.D., Professor of Political Science
625 S. E. Fulton St.
- CARL SCHLENKER, B.A., Professor of German
514 11th Ave. S. E.
- CARLYLE SCOTT, Professor of Music
3322 Lyndale Ave. S.
- CHARLES P. SIGERFOOS, Ph.D., Professor of Zoology
1023 University Ave. S. E.
- ANDREW A. STOMBERG, M.S., Professor of Scandinavian Languages
531 S. E. Walnut St.
- ASHLEY V. STORM, M.A., Professor of Agricultural Education
2239 Como Ave. W., St. Paul
- FLETCHER H. SWIFT, Ph.D., Professor of Education
819 Superior St.
- ARTHUR J. TODD, Ph.D., Professor of Sociology
713 8th Ave. S. E.
- JOSEPH M. THOMAS, Ph.D., Professor of Rhetoric
818 University Ave. S. E.
- MARVIN J. VAN WAGENEN, Assistant Professor of Education
- MARION WELLER, B.A., Assistant Professor of Textiles and Clothing
2176 Scudder Ave., St. Paul
- NORMAN WILDE, Ph.D., Professor of Philosophy
901 S. E. 6th St.

INSTRUCTORS

- JEAN H. ALEXANDER, M.A., Instructor in Education
- FRANCIS B. BARTON, Docteur de l'Université de Paris, Instructor in
Teachers' Course in Romance Languages
507 S. E. Oak St.
- CHARLES L. HARLAN, M.A., Instructor in Education
710 11th Ave. S. E.
- REWEY BELLE INGLIS, B.A., Instructor in Methods of Teaching High
School English
2436 Bryant Ave. S.
- PAUL E. KLOPSTEG, M.A., Instructor in Teachers' Course in Physics
1026 15th Ave. S. E.
- GEORGE A. MCGARVEY, B.A., Instructor in Manual Training
512 S. E. Delaware St.
- WILLIAM D. REEVE, B.S., Instructor in Methods of Teaching High School
Mathematics
820 University Ave. S. E.
- SARA T. RIVET, B.A., Instructor in Methods of Teaching High School
Botany
- STERLING TEMPLE, Ph.D., Instructor in the Teachers' Course in Chemistry
1758 Blair St., St. Paul
- MILDRED WEIGLEY, Instructor in Foods and Cookery
2176 Scudder Ave., St. Paul

UNIVERSITY HIGH SCHOOL

SOPHIA HUBMAN, M.A., Instructor in German
REWEY BELLE INGLIS, B.A., Instructor in English
FRANCES M. MOREHOUSE, B.A., Instructor in History
GEORGE A. MCGARVEY, B.A., Instructor in Manual Training
SAMUEL R. POWERS, B.A., Instructor in Science
WILLIAM D. REEVE, B.S., Instructor in Mathematics
ELSIE M. SMITHIES, B.A., Instructor in Latin

LECTURERS

THADDEUS P. GIDDINGS, Lecturer in Public School Music
Court House, Minneapolis
GEORGINA LOMMEN, Lecturer in Methods of High School Teacher Train-
ing Department 1502 St. Anthony Ave., St. Paul

ASSISTANTS AND SCHOLARS

OSCAR JULIUS JOHNSON, B.A., Assistant

GENERAL INFORMATION

The College of Education was authorized by special enactment of the Legislature of Minnesota in 1905 and was established by the Regents of the University in the following year. It has the following purposes:

1. To offer opportunity for the study of education as an important enterprise of society and as of peculiar interest to all persons whether they are preparing for teaching or not.
2. To offer inexperienced university students who intend to become teachers the technical training for their vocation.
3. To offer experienced teachers or those actively engaged in service opportunity for advanced professional study under direction.
4. To offer to university students, and to all teachers of suitable attainment, appropriate training designed to prepare them for successful careers as public school administrators, normal school teachers, or college teachers of education.
5. To offer opportunity for original investigation, research, and experiments in education and for the preparation of constructive contributions to educational theory and practice.

In fulfilling these purposes the College of Education offers the professional courses for the training of superintendents, principals, supervisors of special subjects, rural school supervisors, teachers of the high school subjects, manual training teachers, school librarians, teachers of high-school teacher-training departments, teachers of agriculture, teachers of home economics, teachers of physical education, supervisors of playground and recreation activities, school nurses, school doctors, and school dentists. The preparation of teachers of home economics and agriculture is given at the College of Agriculture. In every instance the educational courses designed to equip one for work in any one of these special fields is offered by the College of Education, while the subject matter courses are offered by departments in other colleges.

University High School

The University High School and the College of Education are located in the Education Building. The University High School is maintained, first, to conserve the interests of its student body, and, second, to provide superior opportunities for observation and directed teaching for prospective teachers. To fulfill the latter obligation, teachers of recognized skill and proficiency have been engaged as critic teachers. In co-operation with the high school principal, these critics supervise all the practice of the student teachers. For further information consult the Bulletin of the University High School.

ADMISSION

Students looking forward to teaching should consult with the Dean of the College of Education or the Chairman of the Program Committee early in their course.

Not infrequently seniors discover that a slight difference in arrangement of studies in their courses made during their freshman or sophomore years would have made them much more eligible for teaching positions.

Students are held responsible for arranging their courses so as to meet all requirements. To do this intelligently they should secure from the Registrar's office or the office of the Dean of the College of Education the following bulletins and pamphlets:

Bulletin of General Information

Bulletin and program of the College of Education

Bulletin and program of any other college in which subject matter courses are to be pursued

Bulletin of the University High School

Information for New Students

See also page 15 of this bulletin.

Regular Students

To be admitted to regular standing in the College of Education, students must be able to satisfy either of the following requirements, (a) or (b).

(a) Completion of at least the freshman and sophomore years of the College of Science, Literature, and the Arts, or of some other approved College at the University of Minnesota or elsewhere, during which time an introductory course in general psychology shall have been pursued. No formal application is necessary for transfer from the College of Science, Literature, and the Arts to the College of Education, nor is any loss of credits involved. Students able to meet the requirements set forth above simply make known their desire at the Registrar's office at the time of registration and they will thereupon be furnished with College of Education registration cards.

(b) Graduation from an approved normal school of Minnesota or of some other state. See below under Advanced Standing.

Unclassed Students

Normal school graduates receiving forty-two credits, teachers preparing for examination for the First Grade Professional Certificate, but who are unable to meet the regular requirements for admission, teachers in service unable to carry full work, and certain other classes of students are admitted to the College of Education as unclassified students. Each case must, however, be dealt with individually as the result of formal application to the Dean.

Unclassified students in the College of Education will find it possible to pursue all subjects required for a First Grade Professional Certificate.

Student Advisers

Only members of the faculty of the College of Education may act as student advisers.

ADVANCED STANDING

By Examination

The tendency of the College of Education is distinctly toward discouraging any effort to secure advanced standing in professional subjects by examination. With the establishment of correspondence courses in the General Extension Division, there are no longer the reasons which formerly existed for granting such examinations. (See also statement, Practice Teaching, page 21-22.)

Graduates of Minnesota Normal Schools

The College of Education grants to graduates of the Advanced Graduate Course of Minnesota State Normal Schools sixty credits of advanced standing (approximately two years' credit); to graduates of the Advanced Latin or Advanced English courses, forty-two credits.

Normal School graduates desiring admission to the College of Education must present a recommendation from the President of the normal school from which they were graduated, together with a record of the courses pursued and grades received.

Students admitted to the College of Education from normal schools will not be permitted to elect the following courses for credit: Education 1; Philosophy 1-2, or 5.

For a statement of records to be submitted, see Bulletin of General Information, pages 27-28.

CLASS ROUTINE AND SCHOLASTIC REQUIREMENTS

The following regulations refer chiefly to undergraduates; graduate students should consult the bulletin of the Graduate School.

Classes are held mornings and afternoons of every week day except Saturday afternoon. (For teachers' afternoon and Saturday classes see page 18.)

No student may elect work during any semester in more than five departments. Students must elect at least fourteen hours a week. Students may ordinarily elect not more than seventeen credit hours. A student who has, during the preceding semester or two semesters, earned an average of one and one-half honor points for each credit hour taken and who has had no condition or failure the preceding semester, may elect eighteen hours, upon the approval by the Administrative Board of a petition for permission to do the same. For explanation of Credit Hours and Honor Points, see page 16.

Students whose absences exceed four weeks in the aggregate during a semester are not permitted to take the semester examinations without permission of the Administrative Board. Any student reported below

grade in sixty per cent of his work, or in three subjects, at the middle or close of the first semester or middle of the second semester is dropped from the rolls and not allowed to re-enter the University until the opening of the following year.

Examinations are held at the close of each semester. A student's grade is based upon his class work and examination. Four passing grades are given, namely A, B, C, D. Work not done satisfactorily is marked I (incomplete), E (condition), or F (failure). An incomplete must be removed within one month after the opening of the following semester; otherwise it becomes a condition.

A failure must be removed by pursuing the work again in class the next time the course is offered.

CERTIFICATES

Required in Minnesota

Every teacher in the Minnesota Public Schools must have a valid certificate before he can be lawfully employed. Two classes of certificates are of interest to University students:

1. A First Grade Professional Certificate renders its holder eligible for the following positions: (1) Superintendent of Schools (if candidate has had previously two years' experience in supervising grades); (2) Principal of a Graded or High School; (3) Instructor in any high-school subject, except those subjects which demand special certificates.

2. A Special Certificate authorizes the holder to teach the special subjects indicated on the certificate. The University prepares students for special certificates in: (1) Music; (2) Drawing; (3) Home Economics; (4) Manual Training; (5) Agriculture; (6) Commercial Subjects; (7) Public School Music; (8) Physical Education.

3. High School Training and Teacher-Librarians. In addition to the courses preparing for special certificates, the College of Education offers courses to prepare teachers for high-school rural training departments and high-school teacher-librarians. The State Department issues no special certificates for these two classes of teachers, but gives an official endorsement to students who complete these courses in the College of Education. The College of Education grants persons completing these courses a special diploma.

The University Teachers' Certificate

1. Two year certificate. The University Teachers' Certificate is valid for two years as a First Grade Professional Certificate. Holders are eligible for all positions open to holders of the First Grade Professional Certificate named above. The courses leading to this certificate are described on page 21.

2. Life Certificates. After two years of successful teaching experience, the University Teachers' Certificate may become a Life Certificate, upon endorsement by the State Department of Education and the President of the University. This two-years' experience must be gained within

Minnesota. Graduates who teach in another state may, upon returning to Minnesota, apply to the State Department of Education for an extension of their University Teachers' Certificate for two years at the completion of which application may be made for a permanent life certificate. The fee for this extension is \$1. Holders of the University Teachers' Certificate who wish to have their certificate made a permanent life certificate should apply directly to the State Department of Education, St. Paul, for a permanent endorsement of the certificate. The fee for this endorsement is \$5.

Regulations Governing the Issuance of Certificates

1. All inexperienced students desiring the University Teachers' Certificate (described on page 21) are required to comply with the University requirements for this certificate. This certificate shall specify the major and minor subjects the student is qualified to teach.

2. Mature and experienced undergraduates may petition the Administrative Board to be excused from certain of the prescribed courses for the regular University Teachers' Certificate, but their petition must be approved by the Department of Education and the petition must be accompanied by a statement showing that the student has been a successful teacher in certain high school subjects. These students will be required to complete satisfactorily prior to graduation at least fifteen hours of work in education. The education courses which they shall be privileged to carry will be determined entirely upon the recommendation of the Dean of the College of Education or the Department of Education.

3. Graduates of normal schools or of other institutions registered in the College of Education who do not desire to become high school teachers, but who desire a more liberal training for elementary school work, may be relieved from complying with the regular requirements for a University Teachers' Certificate, but they will not be relieved from carrying at least fifteen hours of work in education. Such persons at graduation will be granted a special teachers' certificate describing their courses and indicating the types of positions for which they are qualified.

4. Students desiring to qualify as public school administrators will be granted a certificate upon completion of a course leading to such a certificate, but no student shall be eligible to such a certificate unless he has completed at least twenty-four hours of work in education, at least twelve of which must have been taken at the University of Minnesota.

5. Teachers and supervisors of public school music, of physical education, of manual training, of home economics, of agriculture, and of such special subjects as may later be included in the program of the College of Education will be granted a special teacher's or supervisor's certificate upon completing a prescribed course leading to such a certificate.

6. Students desiring to qualify as heads of teacher training departments in high schools will be granted a certificate upon the completion of a course leading to such a certificate.

7. Students desiring to qualify as teachers of defective or super-normal children will be granted a certificate upon completion of a course leading to such a certificate.

8. Students regularly enrolled for graduate work with Education as a major will, upon the completion of the requirements for an advanced degree, be recommended for a University Teachers' Certificate.

9. Students regularly enrolled for graduate work with education as a minor, who desire a University Teachers' Certificate, will be required to complete the course prescribed for such a certificate, unless they have already met the requirements or their equivalent for the certificate in their undergraduate careers.

THE DEGREE OF BACHELOR OF ARTS (IN EDUCATION)

The degree of Bachelor of Arts (in Education) may be conferred by the College of Education upon any student who fulfills all the requirements stated below.

Summary of Requirements

1. Amount and grade of work. During his entire course the student must earn: (a) one hundred and twenty credit hours in addition to the required exercises in drill, gymnasium, and physical education; (b) one hundred and twenty honor points; (c) one and one-half honor points per credit hour in his major subject.

2. Courses required and allowed. (a) The student must have completed (normally during sophomore year) a general introductory course in psychology (e.g. Philosophy 1-2, or 5, or an equivalent of the same); (b) he must have satisfied all the requirements for a teachers' certificate (see page 21) except as hereinafter provided:

(1) Students already holding a first grade professional certificate will be excused from complying with the university requirements for the certificate, but they will be required to carry an equivalent number of courses in education.

3. Distribution of work—Majors and Minors. A student must take a sufficient number of courses so distributed among at least three distinct departments concerned with the work of the secondary school as to secure one major and two minors. Either Education or Psychology may be counted as a major or a minor in this group.

4. Residence. At least thirty credits must be earned by residence in this college. If the term of residence is only one year, that year must be the senior year; and in any case, at least half of the work of the senior year must be done in residence. Attendance at summer sessions counts as residence.

Explanation of Requirements

The amount of work pursued by a student is estimated in credit hours; the quality or grade of his work, in honor points.

A *Credit Hour* is one hour per week of recitation or lecture work extending throughout one semester, or three hours per week of laboratory work through one semester. It is assumed that each credit hour will demand on the average three hours a week of the student's time for recitation or lecture, one hour in class and two hours of preparation; for laboratory courses, three hours in the laboratory.

Honor Points are computed as follows: each credit hour with the grade of A entitles the recipient to three honor points; each credit hour with the grade of B entitles the recipient to two honor points; each credit hour with the grade of C to one honor point; each credit hour with the grade of D to no honor points. Illustration: A student completing a one-semester three-credit course and receiving the grade A would be entitled to nine honor points; if receiving the Grade of B to six honor points; if receiving the grade of C to three honor points; if receiving the grade D to no honor points.

Majors and Minors. Twelve credits is the minimum requirement for a minor and eighteen credits for a major, in the College of Education. Usually a minor will demand from fifteen to eighteen credits with a corresponding increase for the major, depending upon the combination which the student has selected with a view to future teaching. Only in special cases will the minimum mentioned above be accepted. The definite determination of the credits required is left in each case to the department concerned, for a statement of which consult the departmental statements appearing further on in this bulletin.

GRADUATION WITH DISTINCTION

The degree of Bachelor of Arts in Education with Distinction is granted to graduates of this College who fulfill the following conditions:

A. Special excellence in major subject.

B. Application for the degree with distinction should be made at the time of entering the College, but may, however, be postponed until the opening of the senior year.

C. At the time of application the student shall, after conference with the Dean of the College of Education, or some other member of the Faculty appointed for that purpose, select a subject for his thesis, which must be formally approved and recorded.

D. The presentation of a satisfactory thesis upon some subject within the major field of study not later than May 1, senior year.

E. At the time of application the student must have an average of one and one-half honor points per credit hour in all previous work.

F. At the time of graduation the student must have met all conditions applying to the Bachelor's Degree in Education; must show a record of one and one-half honor points per credit hour in *four fifths of all work pursued throughout his entire course*; and

G. Must be recommended to the Faculty for the degree with distinction, which recommendation must be approved by the vote of the Faculty of the College.

GRADUATE WORK IN EDUCATION

Graduate Study. Graduate courses in Education leading to the degree of Master of Arts or Doctor of Philosophy may be pursued in the Graduate School. Students who desire to undertake graduate work with Education as a major must have had at least a year's work in Psychology, and, in addition to this, a total of not less than twelve credits in Education. Students who desire to undertake graduate work with Education as a minor must have at least a year's work in Psychology, and, in addition to this, a total of not less than six credits in Education. Graduates, holding a Bachelor's degree, who have less than twelve credits in undergraduate courses in Education, will be obliged to increase the number of credits required for a major or a minor in Education by the difference between twelve and the number of undergraduate credits in Education which they present. Such students will not, however, be barred from counting all the time spent at the University toward satisfying the residence requirement of graduate work, provided the work which they pursue is approved by the Dean of the Graduate School.

During summer sessions graduate work may be pursued. The Master's degree may ordinarily be completed in four summer sessions. For full statement of regulations, consult Graduate School bulletin.

TEACHING ASSISTANTS IN MINNEAPOLIS PUBLIC SCHOOLS

The College of Education in coöperation with the Minneapolis schools has adopted a plan which provides for employing in the Minneapolis high schools a certain number of University graduates to be known as "teaching assistants." The adoption of this plan is in essence the establishment in the Minneapolis public schools of a certain number of teaching fellowships for graduate students. These teaching assistants will receive a compensation for their work in the schools proportionate to the amount of time devoted to teaching; \$300 for the first year; \$400 for the second year.

For each assistant a definite course, combining graduate professional study and teaching experience will be outlined. Altho the plan provides an abundance of teaching experience, the greater emphasis will be thrown upon advanced professional study.

Work in Minneapolis Schools. Teaching assistants shall be on duty at the schools from 8:30 until 12:15. Their work will be divided between teaching and assisting. During their first year they shall instruct not more than two classes per day, that is, one third of a regular teacher's teaching periods. If they continue a second year, the portion of their time devoted to class instruction may be increased to three periods a day. Their work as teaching assistants shall be limited to the hours during which they are on duty in the schools and no additional work other than preparation for teaching their regular courses shall be required of them outside of the above set schedule of hours.

Applications for positions as teaching assistants should be made directly to the principal of the University High School. The number of

such positions can not be absolutely determined in advance of the opening of the schools.

COÖPERATION WITH STATE DEPARTMENT OF EDUCATION

Arrangements have been made whereby a few students of superior ability who are interested in problems relating to the administration of state systems of education may carry on a limited part of their work in the office of the State Superintendent of Education. This office now has at its command a very valuable library, a great mass of original material, and the services of a number of competent men and women who are devoting themselves to the administration and supervision of:

(a) The description of state's moneys for the support of public education.

(b) The inspection of rural, elementary, and secondary schools.

(c) Construction of buildings.

(d) The training of teachers.

It is understood that in case any students are recommended for this work, the recommendation must be made by the Department of Education of the University of Minnesota, and that such students, in case they are to receive credit for graduate work in the University of Minnesota, will be expected to work under the supervision of the State Department of Education and the Department of Education in the University of Minnesota and that in each instance, the student will be required to do a specific and intensive piece of work.

SPECIAL OPPORTUNITIES FOR TEACHERS IN SERVICE

Afternoon and Saturday morning classes, correspondence lessons, extension classes, and the summer session are the chief channels through which the College of Education seeks to discharge its obligation to teachers in service.

Afternoon and Saturday Classes

A special announcement of late afternoon and Saturday morning classes arranged especially for teachers, together with a statement of the requirements for admission and method of registration will be issued by the College of Education early in October.

Teacher Training through Extension Courses

The General Extension Division offers excellent opportunities for teachers and others to pursue courses carrying credit for the Bachelor of Arts degree or for the professional state teachers' certificate, either by correspondence lessons or by joining an extension class. For further information address the General Extension Division, University of Minnesota.

Summer Session

The summer session conducted by the University offers unusual oppor-

tunities for professional training to undergraduates, graduates, superintendents and principals, teachers in service, and candidates for first grade and second grade State Professional Certificates. The summer session of 1918 will begin Monday, June 24.

EMPLOYMENT BUREAUS

Appointment Bureau. The University of Minnesota maintains an Appointment Bureau which endeavors to place graduates of the University of Minnesota in positions best suited to their training and experience. Students looking forward to teaching should register during the first semester of their senior year. No fee, however, will be charged to those who register before February 15. Complete instructions and registration blanks should be secured at the office of the Appointments Bureau. During the year 1917-18, the general office of this Bureau will be located in the College of Education Building, Room 110. Special offices, however, will be maintained at the College of Agriculture under the direction of Professor A. V. Storm for those desiring to teach agriculture or domestic science.

State Teachers' Employment Bureau. The State Teachers' Employment Bureau, located in the State Capitol, St. Paul, under the direction of Mr. E. T. Critchett, offers its services to all teachers and prospective teachers. The fee for registration is \$3.

Neither the University of Minnesota nor the State Teachers' Employment Bureau exacts any commission.

COURSE OF STUDY

DEPARTMENT

Every course listed in this Bulletin counts in the College of Education.

GUIDANCE IN THE SELECTION OF COURSES

Superintendents and Graded School Principals

It is desirable that prospective superintendents and principals of graded schools, before entering upon their duties, shall have had courses in School Administration and School Supervision in some recognized normal school or college. The following courses will count toward a supervisor's certificate: 109, 121, 123, 134, 136, 141, and 142. Course 121 is a general introduction to all other courses in School Administration and is especially recommended to those beginning a study of this field.

Graduate Students

All courses bearing numbers of 100 and above are open to graduate students. Before attempting to make out their programs, graduate students in Education should consult the Dean of the College of Education and the Dean of the Graduate School. Attention is called to the fact that Course 125 is ordinarily required of all candidates for advanced degrees. Courses bearing numbers 200 and above are open to graduate students only.

All graduate students majoring in Education are required to meet with the department staff every alternate Monday evening from 7:15 to 9:00 for conference regarding subjects of original investigation. This work carries no credit. See also page 17 of this bulletin.

Candidates for State Professional Certificates

Unclassed students, candidates for the State Professional Certificate, may pursue courses in residence or by correspondence or in extension classes. For guidance in the selection of courses relating to this certificate, consult statement, State Professional Teachers' Certificate, page 21.

Undergraduates

Students should consult carefully the departmental descriptions of courses required for admission to teachers' course. The teachers' course in each subject must be taken in advance of or contemporaneously with practice teaching. For some subjects more than a minor is required for admission to teachers' courses in the case of students who wish to offer the subject only as a minor.

See the following topics in this bulletin: (1) University Teachers' Certificate, page 21; (2) major and minors, page 16; (3) special training courses, pages 22-24; (4) admission, page 10; (5) prerequisites for teachers' courses, pages 21-22.

THE UNIVERSITY TEACHERS' CERTIFICATE

A two-year, junior-senior course, leading to the degree of Bachelor of Arts (in education) entitles the recipient in every case to a University Teachers' Certificate.

All students without teaching experience, desiring a University Teachers' Certificate will be required to comply with the requirements listed below. Such students will also be required to complete a two years' course leading to the degree of Bachelor of Arts (in Education).

Candidates for this degree may major in any department offering work in the College of Education.

Recipients of the degree of Bachelor of Arts (in Education) and of the University Teachers' Certificate may, by a proper selection of studies during their regular course, become eligible for recommendation or endorsement for one of the special certificates described on pages 13-14.

Prescribed Course of Study for University Teachers' Certificate

The College of Education has adopted the prescribed course of study outlined below, for the University Teachers' Certificate, and for the degree of Bachelor of Arts (in Education).

No.	Title	Credits	To be Taken	
			Semester	Year
1.	Brief History of Education.....	3	1 or 2	Jr.
	or			
101-102.	History of Education.....	6	1 and 2	Jr.
3.	Social Aspects of Education.....	3	1 or 2	Jr.
11.	Technique of Teaching.....	3	1 or 2	Sr.
15.	Practice Teaching	3	1 or 2	Sr.
	(See statement below)			
	Teachers' Courses (i.e. courses in special methods covering at least two high school subjects and totaling at least three credits*.....	3	1 or 2 or 1	Jr. Sr.

A general introductory course in Psychology is a prerequisite for all courses in Education, except those now offered in the Department of Agricultural Education and in the Department of Home Economics Education. Credits gained by it, however, are not counted as professional credits toward the teachers' certificate.

* In some cases the amount of work necessary to meet this requirement will total six credits. In other cases a single teachers' course totaling only three credits is arranged in such a way as to cover two subjects, thereby satisfying this requirement. An example of this is the teachers' course in English and Rhetoric.

Graduates of normal schools who, upon entering the College of Education, receive credit for any of the courses specified above will be allowed to elect in the place of the same other strictly professional subjects.

PRACTICE TEACHING—PREREQUISITES

Opportunity for Practice Teaching is provided in part by the University High School and in part by the Minneapolis City Schools.

Education 1 or 101-102, 3, 11, and the teachers' course in the department in which the student wishes to do practice teaching, together with

all subjects required by the department concerned as prerequisite to the teachers' course (see departmental statement) are prerequisite to the course in Practice Teaching. In cases where the teachers' course extends throughout two semesters, students will in exceptional cases be permitted to do their practice teaching during the second semester of their teachers' course.

ADMISSION TO PRACTICE TEACHING

Application and Credentials

No student will be permitted to do practice teaching who has not been definitely recommended by the department in which the subject lies as being well prepared from the standpoint of subject matter.

All assignments to Practice Teaching are made by the Principal of the University High School. Before registering for this work students must consult with him and submit: (1) the departmental recommendation referred to above and (2) a statement from the Registrar showing the courses they are offering as prerequisites including, (a) the courses in Education, (b) the courses in the department concerned. This statement must show when these courses were taken and the grade received and it must be followed by a formal statement that the student has satisfied all the prerequisites for practice teaching. Special blanks for this purpose may be secured at the office of the High School Principal.

Students at the College of Agriculture desiring to qualify as teachers will be required to comply with the usual requirements for practice teaching. Arrangements for this work will be made by Professor Storm and Miss Berry.

Credits allowed in Agriculture and Home Economics. A maximum of eighteen credits is elective from courses in Agriculture and Home Economics, but it should be noted that prospective teachers of these subjects must secure from the State Department of Education in advance of their contract to teach, a special certificate in the subject concerned.

SPECIAL TRAINING COURSES

DEPARTMENT OF AGRICULTURAL EDUCATION

The special professional courses offered by the College of Education for the preparation of teachers, superintendents, and supervisors of agriculture are given in the Department of Agricultural Education on the campus of the College of Agriculture. (See departmental statement, page 34.)

COMMERCIAL TRAINING

The demand for University graduates as commercial teachers has been greater than the University has been able to meet. A new requirement of the State Department that teachers of commercial subjects, must be

college graduates will intensify this demand. The University has as yet made no arrangements to offer the technical subjects required for this work, such as stenography, typewriting, penmanship, bookkeeping, etc. Nevertheless, by a proper selection of courses in English, rhetoric, foreign language, history, economics, psychology, and education, students who have secured a knowledge of the technical subjects elsewhere can get a broad and sound foundation for this work during their university course.

DEPARTMENT OF HOME ECONOMICS EDUCATION

The special professional courses offered by the College of Education in Home Economics for the training of teachers of Home Economics are given by the Department of Home Economics Education on the campus of the College of Agriculture. (See department statement, page 35.)

MANUAL TRAINING

Students looking forward to teaching manual training may, under the present arrangements, offer manual training as a minor in the College of Education. Under manual training in the departmental statement will be found a prescribed course of study to be required of all students whom the College of Education will recommend for certificates as teachers of manual training. (See department statement, pages 37-38.)

HIGH SCHOOL TEACHER-TRAINING DEPARTMENTS

The College of Education offers a definite course of study for the preparation of teachers for high-school teacher training departments. This course is open only to teachers who have had two years of rural teaching experience and who in addition to this are graduates from the advanced course of a Minnesota State Normal School or who possess equivalent professional preparation.

NOTE: To this second requirement, exceptions may be made in the case of teachers already engaged in high-school training departments and in certain other individual cases where circumstances justify the same.

Ordinarily two years will be required to complete this course. However, teachers already engaged in high-school training departments and holding First Grade Professional Certificates and who are unable to absent themselves from their duties for more than a year will be permitted to deviate from the prescribed course of study and to elect such subjects as will be of most immediate use to them in their work.

Students who complete the course offered by the College of Education for teachers of training departments will be eligible for the endorsement of the State Department of Education as heads of training departments in high schools. The course as outlined (see pages 39-40) provides Education as a major study, with Economics and English as minors. The selection of these two subjects as minors has been based upon the nearness of their relation to the work of the rural school teacher. The Educa-

tion courses are all required, but other minors may be selected upon approval. The attention of teachers desiring to become teachers in high-school training departments is called to the following rules recently passed by the High School Board which provides that after 1918 all candidates for this work shall be both normal school and college graduates.

TEACHERS OF DEFECTIVES

Four-year course in Education for Teachers of Exceptional Children, leading to degree of B.A. in Education.

The State of Minnesota has provided state aid to local school systems which arrange for the instruction of subnormal children in special classes. The College of Education of the University of Minnesota has undertaken to prepare teachers for such classes and, to this end, has arranged a program for their training. Persons who have had two years successful experience teaching normal children and who complete the equivalent of the following program will receive a special university teacher's certificate indicating their qualifications for the work of teaching subnormal children in the public schools. This certificate will be recognized by the Minnesota State Department of Education as the equivalent of the certificate issued by the Department to "Directing Teachers for Classes of Subnormal Children."

OUTLINE OF COURSE

Department	Number of Course	Title of Course	Credits
Rhetoric	1-2	Elementary	6
Animal Biology or Chemistry	1-2	Elementary ..	6
Modern Language			6 or 12
Electives			6 or 12
Total			30

SOPHOMORE YEAR

Department	Number of Course	Title of Course	Credits
Psychology	1-2	Elementary	6
Sociology	1a or 1b	Introductory	3
Sociology	6	Modern Social Movements.....	3
Physiology	3a or 3b	Elementary	3
Mech. Engineering	8	Industrial Education including Sloyd and Woodwork.....	3
Physical Education	31 or 32	Organization of Games and Folk Dancing	0
Animal Biology or Chemistry	1-2	Elementary	6
Electives			6
Total			30

JUNIOR YEAR

Department	Number of Course	Title of Course	Credits
Psychology	101a or b	Experimental	3
Sociology	9	Treatment of Dependents and Defectives	3
Sociology	10	Child Welfare	3
Sociology	106	Treatment of Delinquents.....	3
Education	1a or 1b	History of Education or Course in American School System..	3
Education	11a or 11b	Technique of Teaching.....	3
Education	3a or 3b	Social Aspects	3
Education	136	Mental Tests	3
Education	105	Educational Psychology	3
Education	140	Course of Study for Subnormal Children	3
Total			30

SENIOR YEAR

Department	Number of Course	Title of Course	Credits
Education	109	Educational Diagnosis	2
Education	134	Mental Diagnosis of School Children	2
Education	137, 138	Psycho-Educational Clinic	3
Education		Practice Teaching of Subnormal Children	3
Education	123	Theory of Supervision.....	3
Education	106	Educational Psychology	3
Education		Study of Speech Defects.....	3
Education		Lectures on Organization and Administration of Classes for Subnormal Children	
Human Physiology	137a or b	Foods and Practical Dietetics....	2
Electives			9
Total			32

KINDERGARTEN AND ELEMENTARY TEACHERS

The College of Education offers opportunity for advanced study to teachers who have had adequate normal school training and who wish to take further preparation for work as principals, supervisors, or teachers of elementary schools. A special certificate will be granted to normal school graduates who spend two years in the College of Education taking advanced work for the purpose of becoming better teachers of elementary schools. The following agreements between the presidents of the State Normal Schools of Minnesota and the Executive Faculty of the College of Education, reached at an informal conference, April 3, 1915, make it possible for students in the College of Education, who discover during their course that their taste and ability lie in the elementary field, to transfer from the College of Education to one of the normal schools at the opening of their senior year and thus prepare themselves as elementary teachers or as kindergartners without loss of time.

Agreements between Normal Schools and College of Education

1. That less than one year of residence at a State Normal School for the purpose of preparing for kindergarten or elementary school work would not be adequate.
2. That the normal schools would be willing to confer their regular diploma upon university students coming to them from the College of Education, who had had three years of college work, upon the satisfactory completion of one year in the normal schools.
3. That these provisions be limited to students previously registered in the College of Education.
4. That they should not apply to students who had entered the College of Education upon the basis of normal school credits.

PUBLIC SCHOOL MUSIC

See courses 27-28 under statement of Department of Music.

DEPARTMENTAL STATEMENTS

EDUCATION

Professors LOTUS D. COFFMAN, MELVIN E. HAGGERTY, ALBERT W. RANKIN, FLETCHER H. SWIFT; Assistant Professors WILFORD S. MILLER, MARVIN J. VAN WAGENEN; Instructors JEAN. H. ALEXANDER, CHARLES L. HARLAN, REWEY BELLE INGLIS, GEORGE A. MCGARVEY, WILLIAM D. REEVE; Assistant OSCAR JULIUS JOHNSON; Special Lecturers THADDEUS P. GIDDINGS, GEORGINA LOMMEN.

REQUIREMENTS OF THE DEPARTMENT

For a Minor, eighteen credits, including Philosophy 1-2 or equivalent.

For a Major, twenty-four credits, including Philosophy 1-2 or equivalent. Six credits in Philosophy are prerequisite for all courses in Education.

COURSES

No.	Credits	Title	Offered to	Prereq. courses
1a	3	Brief Course in Hist. of Educ.	Jr., sr.	Phil. 1-2
	8	TThS	205Ed	Swift, Alexander
	9	TThS	205Ed	Swift, Alexander
	9	MWF	205Ed	Swift, Alexander
1b	3	Brief Course in Hist. of Educ.	Jr., sr.	Phil. 1-2
	9	TThS	204Ed	Alexander
5b	3	The American School....	Jr., sr.	Phil. 1-2
	10:45	TThS	Col. of Agr.	Swift
3a	3	Social Aspects of Educ....	Jr., sr.	Phil. 1-2
	4	MWF	204Ed	
3b	3	Social Aspects of Educ....	Jr., sr.	Phil. 1-2
	8	MWF	204Ed	Rankin
3bt	3	Social Aspects of Educ....	Teachers	Phil. 1-2
	8-9:50	S		
	1 hr.	Ar	111Ed	Rankin
11a	3	Technique of Teaching....	Jr., sr.	Phil. 1-2
	8	MWF	205Ed	Harlan
	9	MWF	204Ed	Miller
11b	3	Technique of Teaching....	Jr., sr.	Phil. 1-2
	9	MWF	204Ed	Harlan
15a	3	Practice Teaching	Sr., grad.	See statement
	Ar	Ar	Ar	Miller
15b	3	Practice Teaching	Sr., grad.	See statement
	Ar	Ar	Ar	Miller
101	3	Hist. Found. of Mod. Educ.	Jr., sr., grad.	Phil. 1-2 and 6 cr. in Dept. of History
	2-3:30	TTh	205Ed	Swift
102	3	History of Educ. since Reformation	Jr., sr., grad.	Phil. 1-2 and 6 cr. in Dept. of History
	2-3:30	TTh	205Ed	Swift
103	3	Educational Classics	Jr., sr., grad.	1 or 101-102
	10	TThS	205Ed	Swift, Alexander

No.	Credits	Title	Offered to	Prereq. courses
104	3	Educational Classics	Jr., sr., grad.	1 or 101-102
		10 TThS	205Ed	Swift, Alexander
105	3	Educational Psychology ...	Sr., grad.	Phil. 1-2
		11 MWF	204Ed	Haggerty
106	3	Educational Psychology ...	Sr., grad.	Phil. 1-2
		11 MWF	205Ed	Haggerty
109	2	Educational Diagnosis	Sr., grad.	1 or 101-102 and 3
		10-11:40 S	204Ed	Haggerty
119	3	School Curricula	Sr., grad.	1 or 101-102 and 3
		4 MWF	205Ed	Rankin
121a	3	School Organ. & Admin...	Sr., grad.	1 or 101-102 and 3
		3 MWF	205Ed	Rankin
121b	3	School Organ. & Admin...	Sr., grad.	1 or 101-102 and 3
		3 MWF	205Ed	Rankin
123	3	Theory of Supervision....	Sr., grad.	1 or 101-102 and 3
		11 MWF	205Ed	Coffman
124	3	Educational Administration	Sr., grad.	121
		3 MWF	111Ed	Coffman, Van Wagenen
125	2	Methods in Educ. Research	Sr., grad.	1 or 101-102 and 3
		3 MW	111Ed	Coffman
131	3	German Schools	Sr., grad.	1 or 101-102 and 3
		4 MWF	111Ed	Alexander
132	3	French Schools	Sr., grad.	1 or 101-102 and 3
		4 MWF	111Ed	Alexander
134	2	Mental Diagnosis	Sr., grad.	Phil. 1-2
		10-11:40 S	MH	Haggerty, Van Wagenen
135	2	Mental Tests	Jr., sr., grad.	Phil. 1-2
		2-4 WF	MH	Haggerty, Johnson
136	2	Experimental Education ..	Jr., sr., grad.	Phil. 1-2
		2-4 WF	MH	Haggerty, Johnson
137-138	1 to 6	Psycho-Educational Clinic..	Sr., grad.	Phil. 1-2; Ed. 109, 134, or 135
		12:30-2:30 MWF	126-128MH	Haggerty
141	3	School Sanitation	Sr., grad.	1 or 101-102 and 3
		8 MWF	204Ed	Rankin
142	3	Industrial Education	Sr., grad.	1 or 101-102 and 3
		4 MWF	205Ed	Rankin
146	3	Hist. and Prin. of Religious Education	Jr., sr., grad.	Phil. 1-2
		9 TThS	205Ed	Swift
*152	1	Elem. Meth. in Reading..	Jr., sr., grad.	1 or 101-102
		5 Th	111Ed	Lommen
*153	1	Elem. Meth. in English...	Jr., sr., grad.	1 or 101-102
		5 Th	111Ed	Harlan
*154	1	Elem. Meth. in Indus. Arts	Jr., sr., grad.	1 or 101-102
		Ar Ar	Col. of Agr.	Lommen
*155	1	Elem. Meth. in History...	Jr., sr., grad.	1 or 101-102
		5 T	111Ed	Lommen
*156	1	Elem. Meth. in Geography.	Jr., sr., grad.	1 or 101-102
		5 T	111Ed	Lommen
*157	1	Elem. Meth. in Arithmetic	Jr., sr., grad.	1 or 101-102
		Ar Ar	Ar	Harlan

* Credit only in the College of Education.

No.	Credits	Title	Offered to	Prereq. courses
201-202	4	Seminar in Selected Problems in Educ. History..	Grad.	101-102 and 6 cr. in Dept. Hist.
		4-5:30 T	214Ed	Swift
203-204	4	Seminar in Educ. Psychol.	Grad.	105
		4-5:30 M	203Ed	Haggerty
205-206	4	Seminar in Educ. Admin..	Grad.	124, 125
		4-5:30 W	203Ed	Coffman

HISTORY OF EDUCATION

- 1a or 1b. A BRIEF COURSE IN THE HISTORY OF EDUCATION. Current school problems and educational theories in the light of their history. Emphasis upon secondary education and those aspects of education of most immediate concern to high-school teachers. SWIFT, ALEXANDER.
101. FOUNDATIONS OF MODERN EDUCATION. An interpretative historical study of those elements in modern education derived from the Hebrews, Greeks, Romans, Middle Ages, and Renaissance. Emphasis will be laid upon secondary and higher education and the origin and results of the monopoly of the cultural conception of education and cultural studies. SWIFT.
102. HISTORY OF EDUCATION FROM THE REFORMATION TO THE PRESENT TIME. Modern educational institutions, theories, and problems in the light of their history. Special emphasis upon elementary education. SWIFT.
103. EDUCATIONAL CLASSICS. An intensive study of selected writings of educational leaders, ancient, medieval, and renaissance. SWIFT, ALEXANDER.
104. EDUCATIONAL CLASSICS. An intensive study of selected writings of educational leaders, from Locke to the present time. SWIFT, ALEXANDER.
- 201-202. SEMINAR IN SELECTED PROBLEMS IN EDUCATIONAL HISTORY. Research work for graduate students. SWIFT.

PRINCIPLES OF EDUCATION

- 11a or 11b. TECHNIQUE OF TEACHING. Types of classroom exercises; preparation of teaching plans; hygiene of instruction; classroom management; the professional ethics of teaching; observation of high-school work. HARLAN, MILLER.

EDUCATIONAL PSYCHOLOGY

105. EDUCATIONAL PSYCHOLOGY. Advanced work in genetic psychology, the origin and nature of the human organism, the origin, development and control of instincts, and their relations to group activities, and the relation of instincts to the formation of habits; introductory to the psychology of learning. HAGGERTY.

106. **EDUCATIONAL PSYCHOLOGY.** The psychology of learning. Methods of measuring the rate of learning; study of typical learning experiments and an examination of the conditions of the most economic learning, study of individual differences, and the psychology of the school subjects. HAGGERTY.
109. **EDUCATIONAL DIAGNOSIS.** A study of the typical educational problems involving the use of educational scales and standard tests. The course will deal with the nature of the tests, the methods of their use, analysis of the results obtained, and programs of remedial educational procedure based on the results of the test. HAGGERTY.
134. **MENTAL DIAGNOSIS OF SCHOOL CHILDREN.** A study of mental variation in children, its nature, degree, causes, and effects. Introductory to the course will be a series of lectures on the anatomy, physiology, and pathology of childhood. Methods of treating superior and subnormal children in the schools will be discussed. HAGGERTY.
135. **MENTAL TESTS.** A study of individual differences by means of mental tests. Laboratory work in giving and taking tests introductory to the use of group tests for the measurement of age-level, etc. HAGGERTY, JOHNSON.
- §136. **EXPERIMENTAL EDUCATION.** The application of experimental methods to educational research. Problems in mental measurement, educational and mental diagnosis, and the psychology of learning will be set as individual problems for properly prepared students. HAGGERTY, JOHNSON.
- 137-138. **PSYCHO-EDUCATIONAL CLINIC.** The Psycho-educational clinic is conducted in close coöperation with the Medical School clinics in pediatrics and nervous and mental diseases. Students taking this course will be given work in the mental examination and diagnosis of individual cases, and practical experience in the use of standardized tests, studies of family history and investigation of school records. Each student will be expected to make a detailed study of a number of individual cases and to assist in carrying out prescribed treatment in such cases. HAGGERTY.
- 203-204. **SEMINAR IN EDUCATIONAL PSYCHOLOGY.** A research course for graduate students. Topic for year 1917-18, "Educational and Mental Diagnosis of School Children." Required of all students writing theses in educational psychology and related topics. HAGGERTY.

SCHOOL ADMINISTRATION

- 3a or 3b. **SOCIAL ASPECTS OF EDUCATION.** The school as a community factor; the present peculiar relation of the school to social problems; the function of the school in these relations. RANKIN.
- 3bt. **SOCIAL ASPECTS OF EDUCATION.** Same as above for teachers. RANKIN.

119. SCHOOL CURRICULA. A study of the ideas implicit in a democratic society and an attempt to apply those ideas in the selection of the material of school curricula. This will involve some consideration of the constructive aims and methods of education. RANKIN.
- 121a. SCHOOL ORGANIZATION AND ADMINISTRATION. An introductory course in school administration for students of teaching experience and for those looking forward to work as principals and superintendents. RANKIN.
- 121b. Same as 121a. RANKIN.
123. THEORY OF SUPERVISION. The problems involved in the training of teachers in service; studies of qualities of merit in teachers; factors in service; factors in selecting teachers; the distribution of subject matter by grades; time allotment of studies. COFFMAN.
124. EDUCATIONAL ADMINISTRATION. The interpretation of present tendencies in the administration of state and city school systems. COFFMAN.
125. METHODS IN EDUCATIONAL RESEARCH. A study of statistical and other methods as applied to educational investigation. This course is ordinarily required of all candidates for advanced degrees. COFFMAN.
- 205-206. SEMINAR IN EDUCATIONAL ADMINISTRATION. COFFMAN.

SCHOOL SANITATION AND HYGIENE

141. SCHOOL SANITATION AND PUBLIC HEALTH. A course in school hygiene in its broader aspects. Designed for all teachers and supervisors who are responsible for the health of school children. Treats of medical supervision and other problems arising from school environment. RANKIN.

INDUSTRIAL EDUCATION

142. INDUSTRIAL EDUCATION. Existing types of industrial and vocational schools and systems of training. Comparison of conditions in America and foreign countries. Organization of course of study. RANKIN.

FOREIGN SCHOOLS

131. GERMAN SCHOOLS. Study of the existing school systems of Germany and with emphasis upon present conditions and problems. ALEXANDER.
132. FRENCH SCHOOLS. A study of the existing school systems of France with emphasis upon present conditions and problems. ALEXANDER.

RELIGIOUS EDUCATION

146. HISTORY AND PRINCIPLES OF RELIGIOUS EDUCATION. Part I: The influence of religion and religious education as social and spiritual forces among certain selected types. Part II: Principles of education as applied to religious instruction and training. This course may be pursued as a graduate course under certain conditions. SWIFT.

PRACTICE TEACHING

- 15a,b. PRACTICE TEACHING. Teaching under supervision in the University High School and in the Minneapolis City Schools, in the regular secondary school subjects. The course calls for one period daily at the school where the work is assigned. MILLER.

METHODS OF TEACHING

1. General Method. See above Course 11 (Technique of Teaching).
2. Teachers' Courses or Courses in Special Methods of Teaching High School Subjects.

A description of the methods courses offered in the Rural Training Department is given immediately after the following tabular statement.

A recent ruling of the State Department of Education requires courses in special methods of at least two different high-school subjects totaling at least three credits, for all applicants for the State Professional Teachers' Certificate. In some cases the amount of work necessary to meet this requirement will total six credits. In other cases a single teachers' course totaling only three credits is arranged in such a way as to cover two subjects, thereby satisfying this requirement; an example of this is the teachers' course in English and Rhetoric.

METHODS COURSES

No.	Credits	Title		Offered to	Prereq. courses
31-32	3*	Nature Study	.....	Jr., sr.	12 cr. in An. Biol.
		2, 3, 4	T	213AB	Sigerfoos
121-122	6	Studies and Methods in Plant Industry and Gen. Biol.	..	Jr., sr., grad.	An av. of 1 honor point for each cred. hour in 1 intro. and 1 intermed. course
		Ar	Ar	Ar	Rivet
20	2	Teachers' Course in Chemistry		Jr., sr.	3-4 or 7-8 or 21-22
		8	TTh	Ar	Temple
80a,b	3	Teachers' Course in English.		Jr., sr.	See statement
		3-4:30	TTh	206Ed	Inglis
55	3	Teachers' Course in Geog.	..	Jr., sr., grad.	Any one of 36, 39, 116, 118
		8	TThS	105P	Posey
59-60	2*	Teachers' Course in German		Jr., sr.	29-30 and 31-32 or 53-54
		4	F	209F	Schlenker

No.	Credits	Title	Offered to	Prereq. courses
56-57	3	Teachers' Course in History and Political Science.....	Jr., sr.	See statement
	4	MW	111L	Krey
101	3	Advanced Caesar	Jr., sr.	58
	9	TThS	109F	Pike
MT11a,b	3	Manual Training	Sr.	None
	3	MWF	114Ed	McGarvey
54	2	Mathematics	Jr., sr.	11
	3	TTh	113Ed	Reeve
27-28	6	Public School Music.....	Jr., sr.	None
	4:5:30	WF	117Ed	Giddings
90	2	Physics	Sr.	2 & 4, 8 & 10, or 2 yrs. of Physics
		Ar Ar	Ar	Klopsteg
15-16	6	Principles of Phys. Educ. ..	Sr.	1-2, 3-4, 21-22, 31-32, 33-34
	Lect. 10	MWF	201WGM	Ladd, Schill, Tolg
	Lab. 2	MWF	3, 151, 153WGM	Ladd, Schill, Tolg
56-57	3	Teachers' Course in Political Science and History.....	Jr., sr.	See statement
	4	MW	Lib.	.....
80a,b	3	Teachers' Course in Rhetoric (English)	Jr., sr.	See statement
	3-4:30	TTh	206Ed	Inglis
161-162	2	Teachers' Course in Romance Languages	Jr., sr., grad.	See statement
	2	Th	201F	Barton, et al.
110	2	Teachers' Course in Norweg.	Sr., grad.	3-4
	4, 5	Th	206F	Bothne
116	2	Teachers' Course in Swedish	Sr., grad.	7-8
	Ar Ar		206F	Stomberg

* Both semesters must be completed before credit is given for the first semester.

High School Training Department Methods

*152	1	Elem. Methods in Reading..	Jr., sr., grad.	1 or 101-102
	5	Th	111Ed	Lommen
*153	1	Elem. Methods in English...	Jr., sr., grad.	1 or 101-102
	5	Th	205Ed	Harlan
*154	1	Elem. Methods Indust. Arts.	Jr., sr., grad.	1 or 101-102
	Ar Ar		Col. of Agr.	Lommen
*155	1	Elem. Methods in Hist.	Jr., sr., grad.	1 or 101-102
	5	T	111Ed	Lommen
*156	1	Elem. Methods in Geog.	Jr., sr., grad.	1 or 101-102
	5	T	111Ed	Lommen
*157	1	Elem. Methods in Arith. ...	Jr., sr., grad.	1 or 101-102
	Ar Ar		Ar	Harlan

* Receives credit only in the College of Education.

HIGH SCHOOL TRAINING DEPARTMENT METHODS

152. ELEMENTARY METHODS IN READING. The place of reading in the rural school curriculum. Different types of lessons, equipment, materials, adaptation to needs of rural community. LOMMEN.

153. **ELEMENTARY METHODS IN ENGLISH.** The place of English in the rural school curriculum. Different types of lessons, equipment, materials, adaptation to needs of rural community. HARLAN.
154. **ELEMENTARY METHODS IN INDUSTRIAL ARTS.** The place of industrial arts in the rural school curriculum. Different types of lessons, equipment, materials, adaptation to needs of rural community. LOMMEN.
155. **ELEMENTARY METHODS IN HISTORY.** The place of history in the rural school curriculum. Different types of lessons, equipment, materials, adaptation to needs of rural community. LOMMEN.
156. **ELEMENTARY METHODS IN GEOGRAPHY.** The place of geography in the rural school curriculum. Different types of lessons, equipment, materials, adaptation to needs of rural communities. LOMMEN.
157. **ELEMENTARY METHODS IN ARITHMETIC.** The place of arithmetic in the rural school curriculum. Different types of lessons, equipment, materials, adaptation to needs of rural communities. HARLAN.

AGRICULTURAL EDUCATION

Professors ASHLEY V. STORM, DEXTER D. MAYNE; Associate Professor WILBUR H. BENDER; Extension Specialists THEODORE A. ERICKSON, GEORGE F. HOWARD.

General statement.—For specialization in this department, see special requirements in Course of Study.

COURSES

Introductory Courses

No.	Credits	Title	Offered to	Prereq. courses
11a,b	3	Principles of Indus. Educ.... 8:50-10:35 TThS	Soph., jr., sr. 317Ad	None
21	3	Industrial Education 8:00-8:45 TThS	Soph., jr., sr. 317Ad	None Mayne

Advanced Courses

131a,b	3	Methods in Teaching High School Agriculture 8:55-9:40 TThS	Sr. 317Ad	11 Bender
141a,b	3	Teaching 8:55-9:40 MWF 9:50-10:35 MWF	Sr. 317Ad 317Ad	131, Agron. 5, 104; see statement Bender, Storm Bender, Storm
151a,b	3	Organization & Management 10:45-11:30 MWF	Sr. 317Ad	68 Storm

INTRODUCTORY COURSES

- 11a,b. PRINCIPLES OF INDUSTRIAL EDUCATION. The fundamental principles upon which education is based. Emphasis is placed on those phases which are most closely related to industrial education.
21. INDUSTRIAL EDUCATION. A short history of industrial education; the present status in Europe and United States; manual training and home arts in an educational system; the place of agriculture in the public schools; trade and vocational schools. MAYNE.

ADVANCED COURSES

- 131a,b. METHODS IN TEACHING HIGH-SCHOOL AGRICULTURE. Fundamental elements of method in teaching as related to teaching agriculture in high school. Organized subject matter of daily work; selection and manipulation of devices. Classroom and laboratory method. Specific plans for teaching secondary agriculture. BENDER.
- 141a,b. TEACHING.* Observation of regular classes; interpretation of class practices; preparation of lesson plans and actual teaching of classes under careful supervision in recitation and laboratory; criticism and discussion of plans, methods, and results of student's teaching. Students are admitted to this course only when recommended by the faculty of the division in which they are specializing and when accepted by the Division of Agricultural Education. BENDER, STORM.
- 151a,b. ORGANIZATION AND MANAGEMENT. Organization and management of work in secondary schools, particularly of Minnesota, with special reference to agricultural work, courses of study, programs, equipment, laboratory and class management, extension work, plots, and coördination of work. STORM, LUSK.

HOME ECONOMICS EDUCATION

Professor JOSEPHINE T. BERRY; Assistant Professors MILDRED WEIGLEY, MARION WELLER.

COURSES

No.	Credits	Title	Offered to	Prereq. courses
HE42	3	Home Economics Education...	Jr.	He22, Psychol. 5b
		8:55-9:40 MWF	213He	Berry
HE44	3	Organ. & Methods of Teaching for Textiles and Clothing...	Jr.	He13, Psychol. 5b
		8:55-9:40 MWF	213He	Berry, Weller
HE45	1	Home Economics Education...	Sr.	He42
		8:55-9:40 S	213He	Berry
HE46	1	Home Economics Education...	Sr.	He45
		8:55-9:40 S	213He	.....

* Students who are prepared may be required to do their teaching in manual training.

No.	Credits	Title	Offered to	Prereq. courses
HE47	3	Observation and Teaching..... 8:00-8:45 TThS	Sr. 213He	He42 Weigley
HE48	3	Observation and Teaching..... 8:00-8:45 TThS	Sr. 309He	He42 Weller

HE42. HOME ECONOMICS EDUCATION. Curricula, textbooks, equipment, methods of teaching, and class management, as applied to the teaching of Home Economics. BERRY.

HE44. ORGANIZATION AND METHODS OF TEACHING FOR TEXTILES AND CLOTHING. A combination with Course HE42, dealing with adaptations to the teaching of Textiles and Clothing. BERRY, WELLER.

HE45. HOME ECONOMICS EDUCATION. A continuation of HE42. BERRY.

HE46. HOME ECONOMICS EDUCATION. A continuation of HE45. BERRY.

HE47. OBSERVATION AND TEACHING. Observation of teaching in regular classes; criticism and discussion of class practice, lesson plans, methods, results, and examinations; preparation of lesson plans, and directed teaching of foods and cookery and home management. WEIGLEY.

HE48. OBSERVATION AND TEACHING. A course similar to Course HE47 but dealing with the teaching of textiles and clothing. WELLER.

TEACHERS OF PHYSICAL EDUCATION

Seniors desiring special teachers' certificates in physical education will be expected to complete the courses listed below.

No.	Title	Credits
1-2	Elementary Physical Training.....	0
3-4	Intermediate Physical Training.....	3
5-6	Advanced Physical Training (must be taken in senior year)	3
13	Personal Hygiene	3
15-16	Theory of Physical Education.....	6
21-22	Elementary Dancing	0
31-32	Organized Games	0
33-34	Major Sports	0
	Practice Teaching	3
3a	Social Education	3
11a	Technique of Teaching.....	3
1 or 101-102	History of Education.....	3
141	School Sanitation and Public Health.....	3

MANUAL TRAINING

For a Minor, eighteen credits required in the courses outlined below or their equivalent.

For a Teacher's Certificate, completion of eighteen credits in the courses listed below, and the educational work outlined under courses of study for University Teacher's Certificate.

Students desiring to procure a special certificate for the teaching of manual training shall consult with the Instructor in Manual Training before registering.

COURSES

No.	Credits	Title		Offered to	Prereq. courses
1	1½	Mechanical	Drawing	Soph., jr.	None
		Ar	Ar	Ar	French
3a,b*	3	Mechanical	Drawing	Soph., jr.	None
		Ar	Ar	Ar	Whitson
3†	2	Descriptive	Geometry	Jr.	None
		10-11	MTThS	101 Mech.E.	Kirchner
		1-2	M		
		Lect. 9	Th or W		
		10-12	TWThS	101 Mech.E.	Kirchner
		Lect. 9	Th		
		8-10	MWF	101 Mech.E.	Kirchner
		3-5	F		
		Lect. 9	F		
		8-10	WF	101 Mech.E.	Kirchner
		1-3	WF		
		Lect. 9	T	101 Mech.E.	Kirchner
43‡	3	Working Draw. & Specifica..		Jr., sr.	Mech. Draw.
		9-11	MWF	ME	Cederburg
1	2	Advanced Drawing		Jr., sr.	Mech. Draw.
		4-6	WF	114 Ed	McGarvey
5*	3	Carpentry		Jr., sr.	None
		Ar	Ar	Agr. Eng.	White
7*	3	Farm Structures		Jr., sr.	5
		Ar	Ar	Agr. Eng.	Mowry
7	2	Wood Turning and Pattern			
		Making		Sr.	1-5
		8-11	TThS	102 Mech.E.	Richards
		9-12	MF	102 Mech.E.	Richards
8	2	Foundry Work		Sr.	1-5, 7
		8-11	ThS	104 Mech.E.	.....
		9-12	MF	104 Mech.E.	.....
9	2	Forge		Sr.	1-5
		8-11	ThS	102 Mech.E.	Hobart
		9-12	MF	102 Mech.E.	Hobart

* Agricultural Engineering.

† Engineering.

‡ Architecture.

No.	Credits	Title	Offered to	Prereq. courses
10	2	Machine Shop	Sr.	1-5
		8-11 ThS	104Mech.E.	Shipley
		9-12 MF	104Mech.E.	Shipley
6	2	Advanced Woodwork	Jr., sr.	Agr. Eng. 5
		4-6 MWF	114Ed	McGarvey
11 MTa,b	3	Teaching and Supervision of Manual Training	Sr.	1-6
		2 MWF	114Ed	McGarvey

NOTES: 1. In all Manual Training courses each credit hour calls for at least three hours of shop work.

2. In all drawing courses students provide their own instruments and materials. A laboratory fee of three dollars per course will be charged for shop courses.

MECHANICAL DRAWING. Note: For a description of this course see College of Engineering Bulletin. FRENCH.

AGRICULTURAL ENGINEERING 3a,b. Note: For a description of this course see College of Engineering Bulletin. WHITSON.

DESCRIPTIVE GEOMETRY. Note: Course offered in the Engineering College, No. 9. KIRCHNER.

ARCHITECTURE 43. WORKING DRAWINGS AND SPECIFICATIONS. Note: See College of Engineering Bulletin for description of this course. CEDERBURG.

ADVANCED DRAWING. Orthographic and isometric projection, lettering, drawing from machine models, cabinet drawing, topographical drawing, shop details, and elements of architectural drawing. MCGARVEY.

AGRICULTURAL ENGINEERING 5. CARPENTRY. Note: For description of this course see Bulletin of the College of Agriculture. WHITE.

AGRICULTURAL ENGINEERING 7. FARM STRUCTURE. Note: For description of this course see Bulletin of College of Agriculture. MOWRY.

7. WOOD TURNING AND PATTERN MAKING. RICHARDS.

8. FOUNDRY WORK.

9. FORGE. HOBART.

10. MACHINE SHOP. SHIPLEY.

For description of above courses see bulletin of College of Engineering.

6. ADVANCED WOOD WORK. Work adapted to upper grammar grades and high school, with the emphasis placed upon the preparation of models suitable for these grades. Student demonstrations of simple projects. Shop fee, \$3. MCGARVEY.

MT11a,b. THE TEACHING AND SUPERVISION OF MANUAL TRAINING. Teachers' Course. A study of the history and aims of Industrial Education and the methods of presenting Manual Training and Drawing to grade and high school pupils. The outlining of courses and the selecting of equipment adaptable to different types of school systems. MCGARVEY.

HIGH-SCHOOL RURAL TRAINING

Director LOTUS D. COFFMAN; Lecturers CHARLES L. HARLAN, GEORGINA LOMMEN.

REQUIREMENTS OF THE DEPARTMENT

1. *For Admission.* (1) Two years of rural teaching experience; (2) Advanced diploma from a State Normal School. For exceptions, see statement, page 24.

2. *For Recommendation for State Endorsement.* For explanation, see page 24 of this bulletin.

Students who complete the following course will be eligible for recommendation for the endorsement of the State Department of Education as teachers of high-school rural training departments.

In the following course, Education is selected as a major. The two minors recommended are English and Economics. The Education courses, in *italics* are all required, but previous training, experience, and needs of the student may modify his choice of minors and of other electives. Normal school graduates are credited with the History of Education and Introductory Psychology, consequently these courses are not included in the following outline. (See also page 24.)

PRESCRIBED COURSE FOR HIGH SCHOOL RURAL TRAINING TEACHERS JUNIOR YEAR

<i>First Semester</i>		<i>Second Semester</i>	
	Credit		Credit
Education:		Education:	
3a. <i>Social Aspects of Educ.</i> ...	3	152. <i>Elem. Meth. in Read.</i>	1
Economics:		154. <i>Elem. Meth. in Ind. Arts.</i>	1
3b. General Economics.....	3	156. <i>Elem. Meth. in Geog.</i>	1
English:		English:	
1. General Survey	3	2. General Survey	3
		Home Economics*†	3

COLLEGE OF EDUCATION

SENIOR YEAR

First Semester

	Credit
Education:	
11a. Technique of Teaching....	3
123. School Supervision	3
153. <i>Elem. Meth. in English</i> ...	1
155. <i>Elem. Meth. in History</i> ...	1
157. <i>Elem. Meth. in Arith.</i>	1
Sociology:	
119. The Family	3
Agriculture*	3

Second Semester

	Credit
Education:	
142. Industrial Education	3
15. Practice Teaching	3
Philosophy:	
18. Child Development	3
Sociology:	
120. Social Progress	3
6. Social Reform Movements.	3
English:	
54. American Literature	3

* Courses to be selected according to individual interests after conferences with head of department.

† A course in Home Economics especially designed for teachers of high school training departments will be arranged in case the number of registrations and the community of needs of students warrants this.

Descriptions of all courses above not definitely referred to in footnotes will be found in the proper Departmental Statement.

ANIMAL BIOLOGY

Professors HENRY F. NACHTRIEB, JOHN B. JOHNSTON, THOMAS S. ROBERTS, CHARLES P. SIGERFOOS, HAL DOWNEY; Assistant Professors ELMER J. LUND, OSCAR W. OESTLUND; Instructors GEORGE DELWIN ALLEN, CHARLES E. JOHNSON.

REQUIREMENTS OF THE DEPARTMENT

For a Minor, twelve credits.

For a Major, twenty-four credits.

For B.A. with Honors, freshman year, Course 1-2; sophomore year, the student may elect from Courses 7-8, 15-16, 19-20, 23-24; during the junior year the student must elect from Courses 31-14, and must include some line of work begun in the sophomore year which he expects to pursue during the senior year under 161-162.

For a Teacher's Certificate an average of one and one-half honor points and six other credits in Animal Biology and six credits in Botany.

JOURNAL CLUB

The professors, instructors, and advanced students of the department meet once a week to review and discuss current zoological literature and to listen to reports from those carrying on investigations.

COURSES

No.	Credits	Title	Offered to	Prereq. courses
1-2	6†	General Zoology††	All	None
		Sec. 1. Lab. 8, 9	WF	101AB ¶
		Lect. 10	WF	313AB ¶
		Sec. 2. Lab. 10, 11	WF	101AB ¶
		Lect. 9	WF	313AB ¶
		Sec. 3. Lab. 1, 2	M	101AB ¶
		Lab. 2, 3	W	101AB ¶
		Lect. 1	WF	313AB ¶
		Sec. 4. Lab. 8, 9	ThS	101AB ¶
		Lect. 10	ThS	313AB ¶
		Sec. 5. Lab. 10, 11	ThS	101AB ¶
		Lect. 9	ThS	313AB ¶
		Extra Lab. Classes		
		Sec. 6. Lab. 8, 9	MT	101AB ¶
		Sec. 7. Lab. 10, 11	MT	101AB ¶
7-8	6†	Histology-Embryology ...	Soph., jr., sr.	1-2
		10, 11 MWF	201, 211	Downey
12	3	Histological Technique...	Soph., jr., sr.	1-2 and 7-8
		See Anatomy Schedule		
15-16	6†	Gen. Physiology	Jr., sr.	12 credits in An. Biol. or Zool. 1-2 & Chem. 13-14 or 35-36
		2, 3 MWF	20AB	Lund
19-20	6†	Comp. Gross Anat. of Vert.	Soph., jr., sr.	1-2
		2, 3 MWF	105-109, 211AB	Johnson
23-24	6†	Entomology	Soph., jr., sr.	1-2
		10, 11 MWF	208-210AB	Oestlund
		8, 9 TThS	208-210AB	Oestlund
28	3	Ornithology	Soph., jr., sr.	1-2
		2, 3, 4 TTh	211, 314AB	Roberts
30	3	Neurology	Soph., jr., sr.	1-2
		Ar Ar	215IA	Johnston

No.	Credits	Title	Offered to	Prereq. courses
31-32	3†	Nature Study	Jr., sr.	12 credits in An. Biol.
		2, 3, 4 T	213AB	Sigerfoos
51	3‡	Protozoology	Jr., sr.	9 credits incl. 1-2
		8, 9 TThS	213AB	Sigerfoos
56	3‡	Morphology of Invertebr. ..	Jr., sr.	9 credits incl. 1-2
		8, 9 TThS	213AB	Sigerfoos
101-102	6	Advanced Entomology ..	Jr., sr., grad.	1-2, 23-24
		2, 3 MWF	208-210AB	Oestlund, Chapman
107-108	6	Gen. Ecology of Insects. ..	Jr., sr., grad.	1-2, 23-24
		2, 3, 4 TTh	208-210AB	Oestlund, Chapman
117-118	6	Mammology	Jr., sr., grad.	1-2, 7-8 or 19-20
		4, 5 MWF	107-109, 211AB	Johnson
119-120	6	Vertebrate Histology	Sr., grad.	1-2, 7-8, Anat. 111b
		3, 4 TThS	201, 211AB	Downey
123-124	6†	Blood of Vertebrates.	Sr., grad.	1-2, 7-8, Anat. 111b, 131-132, reading knowledge of French and German.
		3, 4 TThS	201, 211AB	Downey
131-132	6†	Embryology	Jr., sr., grad.	1-2, 7-8
		10, 11 MWF	202, 211AB	Nachtrieb
143-144	6	Genetics and Eugenics. ...	Sr., grad.	1-2
		2, 3, 4 TTh	202, 211AB	Nachtrieb
161-162	6 or 12	Problems	Sr., grad.	1-2 and other courses prescribed by the de- partment

Hours, days, and rooms arranged

†† So far as possible students should register for both lecture and laboratory work in the same section.

† Both semesters must be completed before credit is given for the first semester.

‡ Courses 51 and 56 may be combined for a year course.

31-32. NATURE STUDY. Discussions, reference, field and laboratory work, through the year, once a week and, in addition, field trips Saturday afternoons during the autumn and spring months. Especially for the fitting of teachers in secondary schools. SIGERFOOS.

All of the above courses receive credit in the College of Education. For description see College of Science, Literature, and the Arts bulletin.

ASTRONOMY

Professor FRANCIS P. LEAVENWORTH; Assistant Astronomer WILLIAM O. BEAL.

REQUIREMENTS OF THE DEPARTMENT

For B.A. with Honors, the general requirements, Courses 51-52, 101-102 (as a twelve credit course), and six credits in Physics.

Starred Courses. The College of Education has as yet adopted no system of starred courses. Nevertheless, candidates for the degree of Bachelor of Arts with Honors will in some cases be obliged, in order to meet the departmental requirements, to be guided by this system and should therefore consult the departmental statements in the Science, Literature, and the Arts bulletin.

ASTRONOMICAL OBSERVATORY

The Astronomical Observatory contains a ten and one-half inch refracting telescope furnished with a third lens for converting it into a

photographic telescope; a five-inch star camera; a filar micrometer; a spectroscope by Brashear; a meridian circle and zenith telescope; a Repsold photographic measuring machine; a chronograph, and astronomical clocks.

COURSES

No.	Credits	Title		Offered to	Prereq. courses
11a	3	Descriptive Astronomy ..	9 MWF	Soph., jr., sr.	None
			11 TThS	124F	Leavenworth
				124F	Beal
11b	3	Descriptive Astronomy ..	11 MWF	Soph., jr., sr.	None
			11 TThS	124F	Leavenworth
				124F	Beal
13-14	6	Descr. Astr. & Obs. Pract.	9 TThS	Soph., jr., sr.	None
				124F	Beal
51-52	6	General Astronomy	10 MWF	Jr., sr.	1 yr. mathematics
			2 MWF	124F	Beal
				124F	Leavenworth
62a	3	Elements of Pract. Astr...	Ar Ar	Jr., sr.	1 yr. mathematics and Ast. 11, or 13, or 51
				124F	Beal
62b	3	Elements of Pract. Astr..	Ar Ar	Jr., sr.	1 yr. mathematics and Ast. 11, or 13, or 51
				124F	Beal
101-102	6 or 12	Practical Astronomy	10 TThS	Jr., sr., grad.	Math. 7 and 11 and Ast. 11, or 13, or 51
			or MTWThFS	124F	Leavenworth
140	2 or 3	Method of Least Squares	Ar Ar	Sr., grad.	Math. 51
				O	Leavenworth
201-202	3	Adv. Pract. Astr.	Ar Ar	Grad.	Astr. 102
				Ar	Leavenworth
205-206	3	Astrophotography	Ar Ar	Grad.	Astr. 102
				Ar	Leavenworth
209-210	3	Calculation of Orbits....	Ar Ar	Grad.	Math. 51
				Ar	Beal
211-212	3	Celestial Mechanics	Ar Ar	Grad.	Math. 51
				Ar	Beal

All of the above courses receive credit in the College of Education. For description see College of Science, Literature, and the Arts bulletin, pages 24-25.

BACTERIOLOGY

Associate Professor WINFORD P. LARSON; Instructors ARTHUR T. HENRICI, ANNE BENTON; Assistants IKEDA and DIEHL.

COURSES

No.	Credits	Title		Offered to	Prereq. courses
§6a	3	Elementary Bacteriology	M 2, 3, 4; W 2, 3	All	None
				Lab.PHP	Larson, et al.
§6b	3	Elementary Bacteriology	M 3, 4; W 3, 4; F 3	All	None
				Lab.PHP	Larson, et al.
§114	1½	Advanced Bacteriology	TTh 2, 3, 4 (or 2:30-5:30)	All	6a or 6b
				Lab.PHP	Larson, et al.

All of the above courses receive credit in the College of Education.

BOTANY

Professors CARL OTTO ROSENDAHL, JOSEPHINE E. TILDEN; Assistant Professors HERBERT F. BERGMAN, FREDERIC K. BUTTERS, NED L. HUFF; Instructor WILLIAM S. COOPER; Teaching Fellows ARTHUR M. JOHNSON, VINNIE A. PEASE.

REQUIREMENTS OF THE DEPARTMENT

For B.A. with Honors, the general requirements; thirty-six credits in Botany, of which twenty-four shall be selected from advanced Courses 105-106 to 119-120 inclusive. Those electing the Honors Course are urged to secure twelve credits during the sophomore year.

For a Teacher's Certificate, an average of at least one honor point for each credit hour in one introductory and one intermediate course, and in Course 121-122. One year of Zoology is also advised.

Students entering the department without preparation must take Course 1 followed by 2. Students coming from an approved high school course will take Course 1 or 2 according to preparation.

COURSES

<i>Introductory Courses</i>					
No.	Credits	Title		Offered to	Prereq. courses
1a	3	Gen. Botany, Lab. & Class		All	None
		8, 9	MWF	207P	¶
		10, 11	MWF	207P	¶
		1, 2	MWF	207P	¶
		2, 3, 4	MF	207P	¶
		3, 4	MWF	207P	¶
		8, 9	TThS	207P	¶
		10, 11	TThS	207P	¶
		1, 2, 3	TTh	207P	¶
		2, 3, 4	TTh	207P	¶
1b	3	Gen. Botany, Lab. & Class		All	None
		8, 9	MWF	214P	¶
		2, 3, 4	MF	214P	¶
2a	3	Gen. Botany, Lab. & Class		All	1 or approved High School Botany
		8, 9	MWF	214P	¶
		2, 3, 4	MF	214P	¶
2b	3	Gen. Botany, Lab. & Class		All	1 or approved High School Botany
		8, 9	MWF	207P	¶
		10, 11	MWF	207P	¶
		2, 3	MWF	207P	¶
		8, 9	TThS	207P	¶
		10, 11	TThS	207P	¶
		2, 3, 4	TTh	207P	¶
		2, 3, 4	MF	207P	¶
<i>Intermediate Courses</i>					
5a	3	Plant Morphology		Soph., jr., sr.	6 cred.; see bulletin statement
		10, 11	MWF	214P	Butters, Huff

No.	Credits	Title	Offered to	Prereq. courses
5b	3	Plant Morphology	Soph., jr., sr.	6 cred.; see bulletin statement
6a	3	Plant Morphology	214P	Butters, Huff
		10, 11 MWF	.....	3 or 5
6b	3	Plant Morphology ... ..	.....	3 or 5
		10, 11 MWF	214P	Butters, Huff
7-8	6	Taxonomy	Soph., jr., sr.	6 cred.; see bulletin statement
		10, 11 MWF	20P	Rosendahl
9-10	6	Physiology and Ecology....	Soph., jr., sr.	6 credits
		1, 2, 3 MF	3G	Cooper
11	6	Industrial Botany	Soph., jr., sr.	6 credits
		10, 11 TThS	212P	Tilden
12	3	Industrial Botany	Soph., jr., sr.	6 credits
		10, 11 TThS	212P	Tilden

Advanced Courses

105-106	6	Algae	Jr., sr., grad.	9 credits
		1, 2, 3 TTh	212P	Tilden
107-108	6	Mosses and Ferns.....	Jr., sr., grad.	9 cr.
		Ar Ar	Ar	Butters
110	3	Gymnosperms	Jr., sr., grad.	9 cred.; incl. 2 or 3, or 5-6
		Ar Ar	Ar	Butters
111-112	6	Advanced Taxonomy	Jr., sr., grad.	7-8
		Ar Ar	20P	Rosendahl
113-114	6	Advanced Ecology	Jr., sr., grad.	9-10
		Ar Ar	200P	Cooper
117-118	6	Cytology	Jr., sr., grad.	9 credits
		Ar Ar	8P	Rosendahl
119-120	6	Advanced Industrial Bot..	Jr., sr., grad.	11-12
		Ar TTh	212P	Tilden
121-122		Studies and Methods.....	Jr., sr., grad.	9 cr. in Plant Industry and Gen. Biol.
		Ar Ar	Ar	Rivet

121-122. STUDIES AND METHODS IN PLANT INDUSTRY AND GENERAL BIOLOGY. (Teachers' Course.) The subject matter includes what is ordinarily called "Botany," "Agriculture," and "Horticulture." The work presented and discussed as it is taught in the Plant Industry classes in the Minneapolis High Schools. There is a close correlation between the laboratory work, "Practice Teaching" and the seminar work. RIVET.

All of the above courses receive credit in the College of Education. For description see College of Science, Literature, and the Arts bulletin, pages 26-27.

CHEMISTRY

THE SCHOOL OF CHEMISTRY

Professors GEORGE B. FRANKFORTER, CHARLES F. SIDENER; Associate Professors EVERHART P. HARDING, WILLIAM H. HUNTER; Assistant Professors IRA H. DERBY, EDWARD E. NICHOLSON; Instructors ROSS A. BAKER, FRANK W. BLISS, LILLIAN COHEN, LAWRENCE M. HENDERSON,

FRANK H. MACDOUGALL, EDWARD B. PECK, CARL L. SCHUMANN, WOLDEMAR STERNBERG, ISAAC W. GEIGER, H. LEE WARD; Assistants ARTHUR R. CADE, WALTER M. LAUER, ALLEN F. NEWMAN, ANNA PETERSON, S. JOSEPH REICHERT.

REQUIREMENTS OF THE DEPARTMENT

In Chemistry the purpose of the honors course is served by the Five-Year Course in Arts and Chemistry.

For a *Teacher's Certificate*, an average of at least one and one-half honor points for each credit hour in Courses 1-2 or 3-4 and 7-8 or 11-12; and 20.

COURSES

Division of General and Inorganic Chemistry

No.	Credits	Title		Offered to	Prereq. courses
1-2	6†	General Chemistry		Those entering without chemistry	None
		8, 9	TThS	110	Cohen
		10, 11	MWF	110	Cohen
21-22	10	Inorganic and Qual. Chem.		Those entering without chemistry	None
		Lect.	1 M	100	¶
		Lab.	8, 9 TThS	110	¶
		Rec.	10 TThS	111	¶
3-4	6†	Adv. Gen. Chemistry and Qual. Analysis		Fr., soph., jr.	Entrance cr. in Chem.
		Lect.	1 M	100	¶
		Lab.	2, 3 MW	110	¶
		Rec.	2 or 3 F	111	¶
		Lab.	10, 11 S	115	¶
7-8	6†	Qualitative Anal.		Soph., jr., sr.	1-2
		8, 9	MWF	210	Nicholson
		10, 11	MWF	210	Bliss
10	1	Glass Blowing		Jr., sr.	Open only to those who are taking practice teaching in Chemistry
		Ar	Ar	49	Baker
17	2	Inorganic Colloquium ...		Sr.	11-12
		8	MF	111	Baker
20	2	Teachers' Course		Jr., sr.	3-4 or 7-8 or 21-22
		8	TTh	Ar	Temple
167-168	4†	Adv. Inorganic Chem. ...		Sr.	2 yrs. college chem.
		Ar	Ar	Ar	Baker
169-170	4†	Chem. of Rare Elements.		Jr., sr.	11-12
		Ar	Ar	Ar	Nicholson

Division of Analytical Chemistry

11-12	8†	Quantitative Analysis		Soph., jr., sr.	3-4 or 7-8, or 21-22 and 1 yr. math. or Physics 1†
		1-5	F	310	Sidener
		2-5	MW	310	Sidener
107-108	6†	Adv. Quan. Analysis		Jr., sr.	11-12
		Ar	Ar	317	Sidener

Division of Organic Chemistry

No.	Credits	Title		Offered to	Prereq. courses
13-14	6†	Medical Organic Chem...		Soph.	3-4 or 7-8 or 21-22
		Lect. 11	MWF	100	Hunter
		Lab. 2, 5	W or F	10	Hunter
		Rec. 1	Ar	Ar	†
18	2	Organic Colloquium		Sr.	35-36
		8	WF	115	Frankforter
35-36	8†	Organic Chemistry		Soph., jr., sr.	3-4 or 7-8 or 21-22 and 1 yr. Biol. Sci.
		Lect. 11	TTh	100	Frankforter
		Lab. 2, 3, 4	MW	10	Schumann
		Rec. 1	W	315	Schumann
				Sr.	35-36
115	2	Adv. Organic Chem.		Sr.	35-36
		9	MWF	325	Hunter
116	2	Theoretical Org. Chem. ..		Sr.	35-36
		9	MWF	325	Hunter

Division of Physical Chemistry

121-122	4†	Physical Chemistry		Jr., sr.	‡35-36, Physics 2 & 4
		11	WF	115	MacDougall
123-124	2†	Physico-chemical Lab. ...		Jr., sr.	Must be taken in con- junction with 121-122
		2-5	F	117	MacDougall
125-126	6†	Adv. Physical Chem.		Sr.	121-122
		Ar	Ar	Ar	Derby
127	2	Radiochemistry Lectures..		Jr., sr.	3-4 or 7-8 or 21-22 & ‡Physics 2 and 4
		Ar	Ar	Ar	Henderson
128	2	Radiochemistry Lab.		Jr., sr.	127
		Ar	Ar	Ar	Henderson

Division of Technological Chemistry

27-28	4†	Chem. in Every-day Life.		Jr., sr.	3-4 or 7-8 or 21-22
		2-5:30	TTh	Ar	Geiger

Division of Industrial Chemistry

15	2	Photochemistry		Jr., sr.	3-4 or 7-8 or 21-22
		Lect. 8	M	27	Peck
		Lab. 2, 3, 4	Th	27	Peck
16	2	Color Photography		Jr., sr.	15
		Lect. 8	M	27	Peck
		Lab. 2, 3, 4	Th	27	Peck

† Both semesters must be completed before credit is given for the first semester.

‡ This physics may be taken at the same time.

20. TEACHERS' COURSE. For those who expect to teach Chemistry.

All of the above courses receive credit in the College of Education. For description see College of Science, Literature, and the Arts bulletin, pages 28-29.

COMPARATIVE PHILOLOGY

Professor FREDERICK KLAEBER.

COURSES

No	Credits	Title	Offered to	Prereq. courses
101	2	Science of Language.... 2 TTh	Jr., sr., grad. 205F	See bulletin statement Klaeber
102	2	Sci. of Language (Adv.). 2 TTh	Jr., sr., grad. 205F	Same as for 101 Klaeber
		See bulletin statement		
105	1	Universal Language 10 S	Jr., sr., grad. 221F	Same as for 101 Klaeber
109-110	4†	History of the German Language 2 WF	Jr., sr., grad. 205F	German 53, 54 Klaeber
		See bulletin statement		

† Both semesters must be completed before credit is given for either semester. Identical with German 109-110.

All of the above courses receive credit in the College of Education. For description see College of Science, Literature, and the Arts bulletin, pages 30-31.

DRAWING AND DESCRIPTIVE GEOMETRY

Professor WILLIAM H. KIRCHNER; Instructor LAWRENCE J. MORTENSON.

COURSES

No.	Credits	Title	Offered to	Prereq. courses
21-22	4	Technical Drawing 8, 9 MWF	All 13MechE	None Kirchner, Mortenson, et al.

21-22. TECHNICAL DRAWING. Theoretical and practical graphics, the reading and making of working plans. Projection, sketching, lettering, conventions, renderings, and translations. KIRCHNER, MORTENSON.

ECONOMICS

Professors JOHN H. GRAY, E. DANA DURAND; Assistant Professors ROY G. BLAKEY, WILLIAM W. CUMBERLAND, J. FRANKLIN EBERSOLE, THOMAS WARNER MITCHELL; Instructors LLOYD M. CROSGRAVE, ALBERT C. HODGE, ALBERT C. JAMES, J. WARREN STEHMAN; Assistant JOSEPH A. CUMMINGS; in the General Extension Division, Associate Professor CLARE L. ROTZEL; Assistant Professors CHARLES H. PRESTON; Instructor RAYMOND V. PHELAN.

SUGGESTIONS AS TO COURSES IN THE DEPARTMENT

In order to aid students who have some idea as to their intended profession or calling to make a wise choice of courses, the accompanying tabular statement has been prepared.

These recommendations are merely suggestive and more courses are sometimes recommended than suffice to make up a technical major in

order that students may choose those courses which interest them the most.

Course 3-4 is not included in these recommendations, as it should, in any case, precede the advanced courses, and is required of all taking a major in Economics.

Students desiring merely a general acquaintance with Economics as part of a liberal education and as a preparation for citizenship are recommended to take the general courses and such others, amounting at least to a minor, as their interest may indicate.

ECONOMICS

In preparation for	Courses most essential	Additional courses desirable
Law	76, 145, 146, 191	43, 104, 143, 174
Public Service	2, 145, 146, 191	35-6, 101, 164
Consular and Diplomatic Service	2, 13, 72, 76, 101	34, 43, 143
Journalism	2, 43, 145, 146, 173, 191	101, 104, 143, 161, 164
Engineering or Railway Service	47, 145, 146, 173	34, 35-6, 142, 161, 174
Chemistry or Manufactures	2, 15, 76, 145, 161	34, 35-6, 101, 131
Mining	2, 72, 143, 145, 161	13, 142
Banking and Finance.....	43, 46, 101, 143, 145	35-6, 41, 139, 142, 144, 255-56
General Business	2, 13, 43, 76, 143	34, 35-6, 142, 145
Forestry or Agriculture..	13, 15, 18, 22	35-6, 43, 143, 173, 251-2
Teaching Business Subjects	2, 13, 43, 104	34, 35-6, 41
Medicine	2, 43, 164	34, 35-6, 142
Social Service Work.....	2, 101, 161	104, 164, 261-62
The Ministry	2, 161	104
Public Accountancy	34, 35-6, 132	43, 46, 49, 101, 131, 142, 145, 146, 253-54
Insurance	34, 35-6, 46, 47	142, 145, 146

COURSES

No.	Credits	Title	Offered to	Prereq. courses
2b	3	Industries and Commerce... of the United States	Soph., jr., sr.	None
		Sec. 1 9 MWF	9F	Ar
		Sec. 2 10 MWF	109MA	Ar
		Sec. 3 11 MWF	5F	Ar
3-4	6†	General Economics	Soph., jr., sr.	None
		Sec. 1 9 TThS	209MA	Stehman, Blakey
		Sec. 2 11 TThS	102MA	Hodge, Crosgrave
		Sec. 3 3 MWF	202MA	James, Stehman
3b	3‡	General Economics	Soph., jr., sr.	None
		Sec. 1 11 TThS	114F	Hodge
		Sec. 2 3 MWF	102MA	James
4	3	General Economics	Soph., jr., sr.	3
		9 TThS	209MA	Blakey
		Ar Ar	Ar	Blakey
7-8	6††	Principles of Economics....	Soph., jr., sr.	None
		11 MWF	202MA	James, Stehman
7b	3††	Principles of Economics....	Soph., jr., sr.	None
		11 MWF	102MA	James

‡ Credit is given only after Course 4 is completed.

†† Open only to students in the vocational curriculum.

No.	Credits	Title	Offered to	Prereq. courses
9	3	Industrial History	Soph., jr., sr.	None
		11 MWF	102MA	Ar
13	3	Econ. Geog. of Foreign Countries	Soph., jr., sr.	None
		2 MWF	202MA	Ar
34b	3	Business Management	Soph., jr., sr.	3 or 7
		10 TThS	202MA	Mitchell
35-36	6†	Accounting Principles	Soph., jr., sr.	None
Sec. 2 Lect. & Quiz.	10	WF	301MA	Hodge
Sec. 1 Lect. & Quiz.	11	TS	301MA	Mitchell
Sec. 1 Lab.	11, 12	Th	301MA	Mitchell
Sec. 2 Lab.	1, 2	T	301MA	Hodge
Sec. 3 Lab.	1, 2	Th	301MA	Hodge
Sec. 3 Lect. & Quiz.	2	MF	301MA	Hodge
37	3	Marketing of Products....	Soph., jr., sr.	3 credits
		9 TThS	202MA	James
38	3	Advertising	Soph., jr., sr.	3 credits
		11 TThS	125F	James
41	3	Financial History	Soph., jr., sr.	3 or 7
		10 TThS	209MA	Blakey
43a	3	Banking	Soph., jr., sr.	3 or 7
		Sec. 1 9 MWF	209MA	Stehman
		Sec. 2 10 MWF	202MA	Stehman
43b	3	Banking	Soph., jr., sr.	3 or 7
		Sec. 1 10 MWF	209MA	Stehman
		Sec. 2 2 MWF	109MA	Stehman
49	3	Insurance	Soph., jr., sr.	3-4
		11 TThS	109MA	James
76	3	Commercial Policies	Jr., sr.	6 cr. inc. 3 or 7
		10 TThS	209MA	Blakey
88	3	Retail Marketing	Jr., sr.	6 cr. inc. 37
		9 TThS	202MA	James
101	3	Statistics	Jr., sr., grad.	6 cr. inc. 3 or 7
		11 TThS	303MA	Durand
103	3	Distribution of Wealth....	Jr., sr., grad.	3-4 or 7-8
		10 MWF	213MA	Ar
104	3	History of Econ. Ideas....	Jr., sr., grad.	3-4 or 7-8
		10 MWF	213MA	Ar
131	3	Cost Accounting.....	Jr., sr., grad.	3 or 7, and 35-36
		9 TThS	301MA	Mitchell
132	3	Accounting Problems	Jr., sr., grad.	3 or 7, and 35-36
		9 TThS	301MA	Mitchell
142	3	Invest. and Speculations...	Jr., sr., grad.	6 cr. inc. 3 or 7
		9 MWF	109MA	Hodge
143	3	Money and Prices.....	Jr., sr., grad.	3 or 7, and 41 or 43
		10 TThS	109MA	Stehman
145	3	The Modern Business Corporation ..	Jr., sr., grad.	6 cr. inc. 3 or 7
		9 MWF	102MA	Hodge
146	3	Public Utilities	Jr., sr., grad.	145
		9 MWF	102MA	Durand
161	3	Labor Problems	Jr., sr., grad.	6 cr. inc. 3 or 7
		11 MWF	209MA	Crosgrave

* Not open to students who have taken 46 or 47.

† Both semesters must be completed before credit is given.

No.	Credits	Title	Offered to	Prereq. courses
162	3	Labor Legislation 11 MWF	Jr., sr., grad. 209MA	6 cr. inc. 3 or 7 Crosgrave
165	3	Socialism 11 TThS	Jr., sr., grad. 213MA	6 cr. inc. 3 or 7 Crosgrave
173	3	Railway Problems 9 TThS	Jr., sr., grad. 213MA	6 cr. inc. 3 or 7 Ar
174	3	Railway Rate Regulation . . . 9 TThS	Jr., sr., grad. 213MA	173 Ar
191	3	Public Finance 11 TThS	Jr., sr., grad. 209MA	6 cr. inc. 3 or 7 Blakey
192	3	State and Local Taxation . . 11 TThS	Jr., sr., grad. 209MA	191 Blakey
253-254	6	Seminar in Accounting and Business Management . . .	Sr., grad.	12 cr. inc. 35-36, and 131
		Ar Ar	Ar	Mitchell
259-260	6	Seminar in Corporation and Trust Problems Ar Ar	Sr., grad. Ar	12 credits Durand

All of the above courses receive credit in the College of Education. For description see College of Science, Literature, and the Arts bulletin, pages 31-37.

ENGLISH

Professors RICHARD BURTON,¹ CARLETON BROWN, HARDIN CRAIG, FREDERICK KLAEBER, ELMER E. STOLL; Associate Professor OSCAR W. FIRKINS; Assistant Professors JOSEPH W. BEACH, GEORGE N. NORTHROP.²

REQUIREMENTS OF THE DEPARTMENT

For B.A. with Honors, the general requirements, twenty-four credits in English, a reading knowledge of French, German, Italian, Greek, or Latin, and a final year's work in seminar for which a sequence shall have been specially arranged.

For a Teacher's Certificate

- a. English as the major subject of teaching:

English 1-2, 3, 5 or 7, and 28; Rhetoric 1-2, either 11-12 or 15-16, and 41-42.

- b. English as the minor subject of teaching:

English 1-2, and 3; Rhetoric 1-2, and either 11-12 or 15-16.

In order to be recommended, a student must secure an average of at least one and one-half honor points for each credit hour of all the work taken in the departments of English and Rhetoric.

¹ Absent on leave during second semester.

² Absent on leave.

COURSES

No.	Credits	Title		Offered to	Prereq. courses
1-2	6	General Survey	Eng. Lit....	Soph., jr., sr.	Rhet. 1-2
		11	MWF	204F	¶
		11	MWF	109F	¶
		11	MWF	212F	¶
		11	MWF	205F	¶
		11	MWF	110F	¶
		3	MWF	301F	¶
		3	MWF	204F	¶
		3	MWF	110F	¶
		3	MWF	205F	¶
		3	MWF	114F	¶
3	3	Old English	.....	Soph., jr., sr.	1-2‡
		9	TThS	205F	Klaeber
		10	TThS	110F	Firkins
5a	3	Chaucer	.....	Soph., jr., sr.	1-2‡
		9	TThS	204F	Brown
5b	3	Chaucer	.....	Soph., jr., sr.	1-2‡
		10	TThS	110F	Firkins
7	3	Shakespeare	.....	Soph., jr., sr.	1-2‡
		10	TThS	301F	Stoll
26	3	Advanced Old English	....	Soph., jr., sr.	3
		9	TThS	205F	Klaeber
28	1	Hist. of English Language	.....	Jr., sr.	3
		3	T	206F	Klaeber
51	3	Spenser	.....	Jr., sr.	1-2
		2	MWF	110F	Firkins
54	3	American Literature	.....	Jr., sr.	1-2
		9	MWF	204F	Craig
58	3	Nineteenth Century Prose	.....	Jr., sr.	1-2
		10	MWF	204F	Beach
67	3	English Novel	.....	Jr., sr.	1-2
		10	MWF	301F	Burton
80a	3††	Teachers' Course	.....	Jr., sr.	See statement
		3-4:30	TTh	206Ed	Inglis
80b	3††	Teachers' Course	.....	Jr., sr.	See statement
		3-4:30	TTh	206Ed	Inglis
107	3	Eighteenth Century Prose	.....	Jr., sr., grad.	1-2 and 6 credits in courses below 10
		9	MWF	204F	Craig
113-114	6	Drama	.....	Sr., grad.	1-2, 7, and 3 credits in courses below 10
		3	MWF	206F	Firkins
118a	2	Bible as Literature	.....	Jr., sr., grad.	1-2 and 6 credits in courses below 10
		11	TTh	107F	Burton
119-120	6	Prin. of Literary Criticism	.....	Jr., sr., grad.	1-2 and 6 credits in courses below 10
		11	TThS	204F	Firkins
123-124	4	Seminar in Novelists	.....	Sr., grad.	1-2 and 6 credits in courses below 10
		3, 4	T	221F	* Beach
129	3	Modern Drama	.....	Sr., grad.	1-2, 7, and 3 credits in courses below 10
		11	MWF	301F	Burton

‡ This course may be taken at the same time with English 1.

†† Carries credit only in Department of Education.

No.	Credits	Title	Offered to	Prereq. courses
136	3	Advanced Shakespeare ...	Jr., sr., grad.	1-2, 7, and 3 credits in courses below 10
		10 TThS	304F	Stoll
140	2	Advanced Chaucer	Jr., sr., grad.	1-2, 5a or 5b, and 3 cred. in courses below 10
		9 TTh	204F	Brown
143	3	Recent English Poetry....	Jr., sr., grad.	1-2 and 6 credits in courses below 10
		4 MWF	204F	Beach
146	3	Metrical Romances	Jr., sr., grad.	1-2 and 6 credits in courses below 10
		11 MWF		Brown
201	2	Anglo-Saxon	Grad.	.....
		Ar Ar	221F	Klaeber
204	2	Beowulf	Grad.	.....
		Ar Ar	221F	Ar
209-210	4	Middle English Lyric....	Grad.	.....
		Ar Ar	Ar	Brown
211-212	4	Drama in England before Shakespeare	Grad.	.....
		Ar Ar	Ar	Craig
215	2	Drama as a form and phase of modern thought.....	Grad.	.....
		Ar Ar	Ar	Burton
217	2	Seminar in Elizabethan Drama	Grad.	.....
		Ar Ar	Ar	Stoll
220	2	Seminar in Restoration Drama	Grad.	.....
		Ar Ar	Ar	Stoll

*80a,b. **TEACHERS' COURSE.** Methods of teaching English in high schools. Course of study, textbooks, and equipment; visits to high schools; theme-correcting. Open to juniors, seniors, graduates qualifying for a major recommendation in English. Credit only in Education. INGLIS.

All of the above courses receive credit in the College of Education. For description see College of Science, Literature, and the Arts bulletin, pages 40-43.

GEOLOGY AND MINERALOGY

Professors WILLIAM H. EMMONS, CLINTON R. STAUFFER; Associate Professor FRANK F. GROUT; Assistant Professors A. WOLFRED JOHNSTON, CHESSLEY J. POSEY, TERENCE T. QUIRKE; Instructor THOMAS M. BRODERICK; in the General Extension Division, Assistant Professor EDWARD M. LEHNERTS.

REQUIREMENTS OF THE DEPARTMENT

For a Minor, twelve credits.

For a Major, twenty-four credits. It is strongly recommended that a field course be included when this is practicable.

For B.A. with Honors, Courses 11, 20, 105, 111, 124, and a field course; and twelve credits selected from the following courses:

57, 58, 108, 109 in Paleontology

106, 131, 132, 140 in Petrology

112, 124, 137, 140, 144 in Economic Geology

106, 112, 124 in Structural Geology

36, 39, 116, 118 in Geography

For a Teacher's Certificate, requirements the same as for a major, with an average of at least one and one-half honor points for each credit hour.

COURSES

No.	Credits	Title	Offered to	Prereq. courses
1	3†	General Geology	Soph., jr., sr.	None
	8	MWF	105P	Johnston
	10	TThS	110P	Emmons
	11	MWF	110P	Johnston
	3	MWF	110P	Johnston
3	1	General Geology Lab. ...	Soph., jr., sr.	Supports 1
		Ar.	112P	Johnston
4	3	Geology of Minnesota....	Soph., jr., sr.	Course 1
	11	MWF	110P	Johnston
5	3	Economic Geology	Jr., sr.	1 and 6
	9	MWF	104P	Quirke
6	3†	Historical Geology	Soph., jr., sr.	Course 1
	8	MWF	105P	Johnston
	10	TThS	110P	Emmons
	11	TThS	105P	Quirke
	3	MWF	105P	Quirke
8	1	Historical Geology Lab. ..	Soph., jr., sr.	Supports 4 and 6
		Ar.	112P	Johnston
10	3	Elements of Paleontology.	Soph., jr., sr.	Course 1
	10	MWF	104P	Stauffer
11	3	Paleontology	Jr., sr.	Course 6
	Lect. 9	M	104P	Stauffer
	Lab. 2-4	WF	104P	Stauffer
12	3	Paleontology	Jr., sr.	Course 11
	Lect. 9	M	104P	Stauffer
	Lab. 2-4	WF	104P	Stauffer
14	3	Applied Geol. for Civ. Eng.	Soph., jr., sr.	Course 1
	8	TThS	110P	Quirke
15a or 15b	1	Minerals and Rocks.....	Jr., sr.	1
		Ar.	100P	Grout
21	3	Elements of Mineralogy.	Soph., jr., sr.	See bulletin statement
	Lect. 11	TThS	110P	Broderick
	Lab. 8	TThS	100P	Broderick
	Lab. 10	TThS	100P	Broderick
	Lab. 2-5	W	100P	Broderick
22	3	Descriptive Mineralogy...	Soph., jr., sr.	21
	Lect. 11	TThS	110P	Broderick
	Lab. 10	TThS	100P	Broderick
27a or 27b	1	Outlines of Mineralogy..	Jr., sr.	None
		Ar.	100P	Grout
29	3	General Physiography ...	Soph., jr., sr.	None
	10	TThS	105P	Posey
30	3	Principles of Geography.	Soph., jr., sr.	None; 29 desirable
	10	MWF	105P	Posey

† Geology 1 and 6 constitute a year's course; both semesters must be completed before credit is given for the first semester.

No.	Credits	Title	Offered to	Prereq. courses
34	3	Meteorology	Soph., jr., sr.	None
		8 TThS	105P	Posey
35	1	Laboratory work	Soph., jr., sr.	See bulletin statement
		Ar.	104P	Posey
36	3	Geog. of North America.	Jr., sr., grad.	1 or 29 and 3 creds. from 5, 6, 30, 34, 39
		10 TThS	105P	Posey
37	3	Physical & Com. Geog...	Fr.	None
		9 MWF	204P	Posey
39	3	Geographic Influences ...	Jr., sr., grad.	3 cred. from 1, 29, 30, and History 5 or its equivalent
		10 MWF	105P	Posey
55	3	Teachers' Course in Geog.	Jr., sr., grad.	Any one of 36, 39, 116, or 118
		8 TThS	105P	Posey
57	3	Paleontology	Jr., sr.	6
		9-11 TThS	104P	Stauffer
58	3	Paleontology	Jr., sr.	57
		9-11 TThS	104P	Stauffer
61	3	Physical Mineralogy	Jr., sr.	22
		Ar.	Ar.P	Grout
65	3	Morphology of Minerals.	Jr., sr.	22
		Ar.	Ar.P	Grout
105	3	Elements of Rock Study.	Jr., sr., grad.	See bulletin statement
		2-4 TTh	200P	Grout
106	3	Petrology	Jr., sr., grad.	105
		2-4 TTh	200P	Grout
108	3	Paleontologic Practice ...	Jr., sr., grad.	58
		2-4 MWF	107P	Stauffer
109	3	Advanced Paleontology ..	Jr., sr., grad.	58
		8-10 MWF	107P	Stauffer
110	3	Advanced Paleontology ..	Jr., sr., grad.	109
		8-10 MWF	107P	Stauffer
111	4	Ore Deposits	Sr., grad.	6, 22, 105
		8 TWThF	110P	Emmons
112	4	Problems in Ore Deposits	Sr., grad.	111
		2-6 W	104P	Emmons
116	3	Geog. of Latin America..	Jr., sr., grad.	6 cred. from 1, 6, 29, 30, 34, 36, 39
		9 MWF	105P	Posey
118	3	Geog. of Eurasia.....	Jr., sr., grad.	Same as for 116
		9 MWF	105P	Posey
124	3	Structural & Metam. Geol.	Sr., grad.	6, 22, 105
		10 TThS	112P	Johnston
131-132	6	Advanced Petrology.....	Jr., sr., grad.	106
		Ar.	200P	Grout
137	3	Testing Econ. Minerals..	Jr., sr., grad.	6, 22, 105
		Lect. 11 MW	200P	Grout
		Lab. 2-4 W	200P	Grout
140	3	Applied Petrology	Jr., sr., grad.	See bulletin statement
		Ar.	200P	Grout
144	3	Construction of Geol. Maps	Jr., sr., grad.	1, 6
		Ar.	112P	Quirke
151	3	Advanced General Geol..	Jr., sr., grad.	6
		11 MWF	104P	Stauffer

No.	Credits	Title	Offered to	Prereq. courses
152	3	Advanced General Geol.	Jr., sr., grad.	151
		11 MWF	104P Stauffer	
160	6	Field Geology	Jr., sr., grad.	See bulletin statement
188	6	Field Work in Geography	Jr., sr., grad.	See bulletin statement

All of the above courses receive credit in the College of Education. For description see College of Science, Literature, and the Arts bulletin, pages 47-50.

55. **TEACHERS' COURSE IN GEOGRAPHY.** A critical study of materials and methods of teaching secondary school geography. The relation of human activities to environment will be emphasized. For teachers of high school geography. Prerequisites: Geology I or 29, and 36 or 116 or 118. POSEY.

GERMAN

Professor CARL SCHLENKER; Assistant Professors OSCAR C. BURKHARD, JAMES DAVIES, ALFRED E. KOENIG, SAMUEL KROESCH, WALTER R. MYERS; Instructors ARTHUR R. GRAVES, HAROLD W. SOULE, EDWIN H. ZEYDEL; Teaching Fellow

REQUIREMENTS OF THE DEPARTMENT

For *B.A. with Honors*, the general requirements, and fifteen credits during the junior year in courses numbered between 51 and 100, of which Courses 53-54 and 55-56 are required; eight credits during the senior year, including at least one course numbered between 101 and 200, and one course numbered above 200; and the special thesis, to be completed under the direction of the instructor in charge of the latter course.

Teacher's Certificate in German. For a minor recommendation, a minimum of fourteen credits; required courses are German 29-30, 31-32 and 59-60. For a major recommendation, a minimum of twenty-eight credits; required courses are German 29-30, 31-32, 53-54, 55-56 and 59-60. German 57-58 is strongly recommended. German 1 and 3 shall not be counted toward either a minor or a major recommendation. To obtain either a minor or a major recommendation the student must obtain an average of one and one-half honor points for each credit hour for all German courses taken.

For courses in Germanic Philology see the statement of the Department of Comparative Philology.

COURSES

a. Only students who are taking or who have taken Course 5-6 or Course 16 may elect the supplementary courses 25-26 and 27-28, either one or both. But students electing Course 11-12 or Course 14 may elect Course 25-26. No credit will be granted for Course 25-26 or Course 27-28 if students elect them when taking or when they have taken courses numbered above 50.

b. Only students who are taking or who have taken Courses 7-8 or Course 9-10 or Course 11-12 or Course 14 or Course 21-22 or Course 23-24 may elect the supplementary courses 29-30 and 31-32, either one or both together. Students electing Course 11-12 or Course 14 or Course 21-22 should take courses 29-30 and 31-32 only after consultation with the instructor in charge.

c. Credit for only one of the following courses will be granted: Courses 5-6, 16, 21-22.

d. Credit for only one of the following courses will be granted: Courses 7-8, 9-10, 11-12, 14, 21-22, 23-24.

COURSES

No.	Credits	Title	Offered to	Prereq. courses
1a	6	Beginning	All	None
	8	MTWThFS	207F	¶
	9	MTWThFS	207F	¶
	10	MTWThFS	207F	¶
	11	MTWThFS	207F	¶
1b	6	Beginning	All	None
	9	MTWThFS	101F	¶
3a	6	Intermediate	All	1a or 1b
	11	MTWThFS	209F	¶
3b	6	Intermediate	All	1a or 1b
	8	MTWThFS	207F	¶
	9	MTWThFS	207F	Kroesch
	10	MTWThFS	207F	Myers
	11	MTWThFS	207F	Koenig
5-6	6†	Prose and Poetry	Fr., soph.	2 yrs. prep. German
	8	TThS	209½F	¶
	9	MWF	212F	¶
	10	MWF	209F	¶
	10	TThS	213F	¶
	11	TThS	110F	¶
	2	MWF	213F	¶
6a	3	Prose and Poetry	Fr., soph.	5a or 5b
	2	MWF	209F	Graves
7-8	6	Drama	All	5-6 or 4 yrs. prep. German
	9	TThS	212F	Burkhard
	10	MWF	212F	Schlenker
	11	TThS	212F	Davies
11-12	6†	Rapid Reading	Soph., jr., sr.	3a or 3b
	9	TThS	213F	Koenig
	10	MWF	213F	Graves
	11	MWF	213F	Kroesch
14	6	Rapid Reading	Soph., jr., sr.	3a or 3b
	11	MTWThFS	209F	Zeydel
16	6	Prose and Poetry	All	2 yrs. prep. German
	11	MTWThFS	113F	¶
21-22	6†	Scientific Intermediate	Soph., jr.	3a or 3b
	11	TThS	213F	Graves
23-24	6†	Scientific Advanced	Soph., jr.	5-6 or 16 or 21-22
	10	MWF	206F	Soule

No.	Credits	Title	Offered to	Prereq. courses
25-26	2†	Elementary Composition ..	Fr., soph., jr.	See note a
		9 S	209½F	Zeydel
		10 S	209½F	Koenig
27-28	2†	Elementary Conversation..	Fr., soph., jr.	See note a
		8 WF	209½F	Zeydel
		9 TTh	209½F	Graves
		10 TTh	209½F	Soule
29-30	2†	Advanced Conversation ...	Soph., jr., sr.	See note b
		9 WF	209½F	Zeydel
		10 TTh	209F	Davies
31-32	2†	Intermediate Composition..	Soph., jr., sr.	See note b
		9 M	209½F	Graves
		10 S	209F	Davies
51	2	Faust, Part I	Soph., jr., sr.	7-8 or 9-10 or 11-12 or 14 or 23-24
		11 WF	209½F	Schlenker
53	3	Survey through Classic Period	Soph., jr., sr.	7-8 or 9-10 or 11-12 or 14 or 23-24
		9 MWF	209F	Burkhard
		9 TThS	209F	Myers
54	3	Survey since Classic Period	Soph., jr., sr.	53
		9 MWF	209F	Burkhard
		9 TThS	209F	Myers
55-56	2†	Advanced Composition ...	Jr., sr.	31-32
		3 M	207F	Kroesch
		3 M	209F	Myers
57-58	4	Oral Diction	Jr., sr.	See statement
		10 MW	209½F	Koenig
59-60	2†	Teachers' Course	Jr., sr.	29-30 and 31-32 or 53-54
		4 F	209F	Schlenker
61	2	Romantic School	Jr., sr.	7-8 or 9-10 or 11-12 or 14 or 23-24
		11 TTh	209½F	Schlenker
62	2	Drama since 1880	Jr., sr.	2 credits in starred courses
		11 TTh	209½F	Schlenker
107-108	4†	Middle High German	Jr., sr., grad.	4 credits in starred courses
		4 WF	209½F	Kroesch
109-110	4†	Hist. of German Language	Jr., sr., grad.	4 credits in starred courses
		2 WF	205F	Klaeber
119-120	4†	Drama of Schiller	Sr., grad.	4 credits in starred courses
		2, 3 Th	209½F	Myers
127-128	4	Eighteenth and Nineteenth Century Lyric	Sr., grad.	4 credits in starred courses
		2, 3 F	207F	Davies
137-138	4†	Aspects of Nineteenth Cen- tury Literature	Sr., grad.	4 credits in starred courses
		2, 3 W	209½F	Burkhard

† Both semesters must be completed before credit is given for either semester.

No.	Credits	Title	Offered to	Prereq. courses
143-144	4†	Heine und das Junge Deutschland	Sr., grad.	4 credits in starred courses
	4	TTh	207F	Graves
225-226	4†	Literary Problems	Honors and grad.	
	2, 3	T	209½F	Schlenker

† Both semesters must be completed before credit is given for either semester.

59-60. TEACHERS' COURSE. Lectures, readings, and reports; observation of classes. SCHLENKER.

All of the above courses receive credit in the College of Education. For description see College of Science, Literature, and the Arts bulletin, pages 47-50.

GREEK

Professor CHARLES ALBERT SAVAGE.

REQUIREMENTS OF THE DEPARTMENT

For a Minor, twelve credits.

For a Major, twenty-four credits (exclusive of Courses 59 to 64 inclusive).

COURSES

No.	Credits	Title	Offered to	Prereq. courses
1-2	10†	First Year Greek	Fr., soph., jr., sr.	None
	9	TWThFS	114F	Savage
3-4	6†	Anabasis-Iliad	Fr., soph., jr., sr.	1-2
	10	MWF	114F	Savage
51	3	Philosophy	Jr., sr.	3-4
	10	TThS	114F	Savage
52	3	Oratory	Jr., sr.	3-4
	10	TThS	114F	Savage
101	3	Lyric Poetry ^p	Sr., grad.	51-52
	11	MWF	113F	Savage
102	3	Tragedy	Sr., grad.	7 or 101
	11	MWF	113F	Savage

Courses open to all. No knowledge of Greek required.

61	2	Drama	Jr., sr.	None
	2	TTh	114F	Savage
62	2	Literature and Life	Jr., sr.	None
	2	TTh	114F	Savage
63	1	Mythology	Jr., sr.	None
	3	Th	114F	Savage

All of the above courses receive credit in the College of Education. For description see College of Science, Literature, and the Arts bulletin, pages 50-51.

† Both semesters must be completed before credit is given for the first semester.

HISTORY

Professors GUY STANTON FORD, WILLIAM STEARNS DAVIS, WALLACE NOTE-STEIN, ALBERT BEEBE WHITE; Associate Professors SOLON JUSTUS BUCK, AUGUST CHARLES KREY; Lecturer LESTER BURRELL SHIPPEE; Instructor WAYNE EDSON STEVENS; Teaching Assistant WILSON PORTER SHORTRIDGE; Assistants ALICE H. FELT, FRANCES IRWIN, CECIL W. SHIRK.

REQUIREMENTS OF THE DEPARTMENT

For B. A. with Honors, see general statement.

For a Teacher's Certificate, eighteen credits in History, including at least three credits in intensive courses. In addition the student must take History 56-7.

The Departments of History, Economics, Political Science, Sociology and Anthropology constitute a social science group. The subjects are closely interrelated, and are of especial importance to students who intend to engage in law, business, public service at home or abroad, journalism, and the work of charities and corrections, or to give instruction in one of the social sciences. Students who are interested in any one of the departments of the social science group ought to be familiar with at least the elements of the subjects offered in the other departments. A student who takes his major in any one of them ought to have more than the elements of the others.

COURSES

No.	Credits	Title	Offered to	Prereq. courses
1-2	6	Med. and Modern Europe.	All	None
	(Lecture)	1 W	30Ph	Ford, Krey
		8 TS	111L	¶
		9 MF	111L	¶
		9 TS	111L	¶
		10 MF	111L	¶
		11 MF	15F	¶
		11 TS	111L	¶
		3 MF	111L	¶
2a-1b	6	Med. and Modern Europe.	All	None
		10 TThS	301F	¶
3-4	6	English, 1066 to present...	All	None
	(Lecture)	1 M	301F	White
	(Lecture)	1 M	308F	Notestein
		9 WF	112L	¶
		9 TTh	112L	¶
		10 WF	112L	¶
		10 TTh	112L	¶
		11 WF	112L	¶
		11 TTh	112L	¶
		2 WF	112L	¶
		3 WF	112L	¶
5-6	6	American History	Soph., jr., sr.	6 credits
	(Lecture)	10 M	5F	Shippee
		10 WF	5F	¶
		10 ThS	5F	¶
		11 WF	3F	¶

No.	Credits	Title	Offered to	Prereq. courses
7-8	6	English History, 1783-1917. 2 MWF	Soph., jr., sr. 218bL	6 credits Notestein
9	3	National Movements See statement	Soph., jr., sr.	6 credits
10	3	Europe in 19th Century.. 11 MWF	Soph., jr., sr. 111L	6 credits Ford
13	3	Medieval Civilization See statement	Soph., jr., sr.	6 credits
14	3	Renaissance and Reform'n. 11 MWF	Soph., jr., sr. 3F	6 credits Krey
15	3	Military History 10 TThS	See note† 3F	See bulletin statement Davis
21	3	Outlines of Greek History. 3 MWF	Jr., sr. 3F	9 credits Davis
22	3	Outlines of Roman History 3 MWF	Jr., sr. 3F	9 credits Davis
56-57	3	Teachers' Course 4 MW	Jr., sr. 111L	See statement Krey
61	3	National Expansion and Jacksonian Democracy, 1816-1840 3 MWF	Jr., sr. 5F	9 credits (inc. 5-6) Stevens
62	3	Recent American History.. 3 MWF	Jr., sr. 5F	9 credits (inc. 5-6) Shippee
101	3	French Revolution 11 MWF	Jr., sr., grad. 111L	9 credits Ford
104	3	The Near East..... 10 TThS	Jr., sr., grad. 111L	9 credits Davis
121-122	6	History of Greece..... See statement	Jr., sr., grad.	See statement
123-124	6	History of Rome..... See statement	Jr., sr., grad.	See statement
125	3	History of Old Orient.... See statement	Jr., sr., grad.	9 credits
133-134	6	Ancient Civilization 11 TThS	Jr., sr., grad. 3F	See statement Davis
136	3	Outlines of Prussian Hist.. See statement	Jr., sr., grad.	9 credits
137	3	English Constitutional Hist. 4-5:30 TTh	Jr., sr., grad. 218bL	9 credits White
141	3	West in American History. 3 MWF	Jr., sr., grad. 218bL	9 credits (inc. 5-6) Buck
144	3	History of Minnesota..... 3 MWF	Jr., sr., grad. 218bL	9 credits (inc. 5-6) Buck
155	3	American Economic and Social History 1860-76... 2-3:30 TTh	Sr., grad. 112L	12 credits (inc. 5-6) Shippee
162	3	Beginnings of Parliament. 4-5:30 TTh	Jr., sr., grad. 218bL	See bulletin statement White
163	3	English Judicial System... See statement	Jr., sr., grad.	See statement
171-172	6	German History See statement	Sr., grad.	See statement
181	3	English Backgrounds of American History See statement	Sr., grad.	12 cr. (inc. 3-4)

No.	Credits	Title	Offered to	Prereq. courses
182	3	English Colonization in America	Sr., grad.	12 cr. (inc. 5-6 or 181)
183	3	Stuart' Period	Sr., grad.	See statement
		4:5:30 WF		Notestein
191	3	Age of the Crusades.....	Sr., grad.	See statement
		1:30-3 TTh	218bL	Krey

56-57. THE TEACHING OF HISTORY AND GOVERNMENT. Open only to students who have eighteen credits in History, including a starred course. Deals chiefly with the practical problems of teaching history and government in the secondary schools. Students planning to teach government must have 9 credits in Political Science. KREY, et al.

All of the above courses receive credit in the College of Education. For description see College of Science, Literature, and the Arts bulletin, pages 51-54.

HUMAN ANATOMY

THE MEDICAL SCHOOL

Professors CLARENCE M. JACKSON, JOHN B. JOHNSTON, THOMAS G. LEE, RICHARD E. SCAMMON; Associate Professor CHARLES A. ERDMANN; Instructors JAY A. MYERS, ANDREW T. RASMUSSEN.

REQUIREMENTS OF THE DEPARTMENT

For a Minor, twelve credits.

For a Major, twenty-four credits.

Prerequisites in Animal Biology may be counted as a part of the work for a minor or major.

COURSES

No.	Credits	Title	Offered to	Prereq. courses
3-4	10	Gross Human Anatomy.....	Soph., jr., sr.	An. Biol. 1-2
		Lab. 8, 9, 10, 11 TThS	304-308IA	Jackson, et al.
		Lect. 1 MW	304IA	Jackson
101	5	Human Histology	Jr., sr., grad.	An. Biol. 7-8
		Lab. 8, 9, 10 MWF	106-108IA	Scammon, et al.
		Lect. 11 WF	102IA	Scammon
102	3	Human Embryology	Jr., sr., grad.	An. Biol. 7-8
		Lect. 11 MW	102IA	Scammon
		Quiz. 3 Th	106-108IA	Lee, et al.
		Lab. 3, 4, 5 M or W or F	106-108IA	Lee, et al.
103	3	Human Neurology	Sr., grad.	Anat. 101 and 102, or An. Biol. 7-8 or 19-20
		Lab. 8, 9, 10 ThS	108-214-215IA	Johnston, Rasmussen, et al.
111a,b	3	Anatomical Technique	Soph., jr., sr.	Histology or Embryol.
		1, 2, 3 TS	113IA	Lee
114	3	Topographic Anatomy	Sr., grad.	3-4
		Lab. 1, 2, 3 TTh	313IA	Jackson
115	3	Fetal Anatomy	Sr., grad.	3-4 and 102 or An. Biol. 137
		Lab. Ar. TTh	20IA	Scammon

General Zoology (Animal Biology 1) is an additional prerequisite for all courses in Human Anatomy.

NOTE: Since the number of students in anatomy Courses Nos. 3-4, 101, and 102 is limited, students will not be permitted to register for these courses without written permission from the head of the department.

All of the above courses receive credit in the College of Education. For description see College of Science, Literature, and the Arts bulletin, pages 55-56.

HUMAN PHYSIOLOGY

Professor ELIAS P. LYON; Associate Professors RICHARD OLDING BEARD, FREDERICK H. SCOTT, JOHN E. MCCLENDON; Assistant Professors M. RUSSELL WILCOX, FRANCIS B. KINGSBURY, CHAUNCEY J. V. PETTIBONE; Assistants CHARLES C. GAULT, ALBERT M. SNELL.

REQUIREMENTS OF THE DEPARTMENT

For a Minor, twelve credits, which may include Animal Biology 1-2.

For a Major, Animal Biology 1-2 and eighteen credits, including Physiology 102, 103, and 104. In these eighteen credits may be included Anatomy 101 and Animal Biology 15-16.

COURSES

No.	Credits	Title	Offered to	Prereq. courses
1-2	2 or 4	Physiology and Hygiene..	All	None
		9-12 S		
3a,b	3†	Elem. Human Physiology	Soph., jr., sr.	1 yr. Chem., half yr. Biol.
		1:30-4 T		
		1:30-5 Th	214MH	Beard, or Lyon, et al.
4	3†	Elementary Physiology ...	Soph., jr., sr.	Elem. Chem. & Biol. or Anat.
		9-10 T		
		9-12 Th		
		9-10 S	214, 301MH	Beard or Lyon, et al.
6	3†	Elem. Physiol. Chemistry.	Soph., jr., sr.	Elem. Chem. & Biol. or Anat.
		10-12 T		
		10-12 S	214, 310MH	Pettibone, et al.
102	5	Physiologic Chemistry ...	Jr., sr., grad.	Organic Chem.
		8-11 MW		
		8-12 F	214, 310MH	Pettibone, et al.
103	4	Physiol. Muscle, etc.....	Jr., sr., grad.	An. Biol. 1-2 and 7-8 or Anat. 101
		1-3 M		
		1-4:30 W		
		1-3:30 F	214, 301MH	Scott, et al.
104	4	Physiol. Nerv. Sys., etc..	Jr., sr., grad.	An. Biol. 1-2 and 7-8 or Anat. 101
		1-3 M		
		1-4 W		
		1-4 F	214, 301MH	Lyon, et al.
151-152	6	Physiologic Chemistry ...	Jr., sr., grad.	Organic Chem.
		1-4 TTh	305, 310MH	Kingsbury, et al.

† Students may not receive credit for any two of Courses 3 and 4.

1-2. HUMAN PHYSIOLOGY. A course in the essentials of human physiology and hygiene, planned to afford teachers an adequate knowledge of the human subject whom they are engaged in teaching. Offered to public school teachers and others. BEARD and Assistants.

All of the above courses receive credit in the College of Education. For description see College of Science, Literature, and the Arts bulletin, pages 56-57.

LATIN

Professors JOSEPH B. PIKE, JOHN E. GRANRUD.

REQUIREMENTS OF THE DEPARTMENT

For a Teacher's Minor Recommendation, Courses 5, 6, 57, 58, and 101; *for a Major Recommendation*, these same courses with the addition of Course 102, with an average of at least one and one-half honor points per credit hour.

For B.A. with Honors, the general requirements, and a fair reading knowledge of German or French or Greek. Six credits in Latin a semester during the junior and senior years are to be selected from Courses 57 to 204. (Students who do not desire a recommendation for teaching Latin may, by selecting courses that are given in alternate years, secure enough work for the honors course without being obliged to take Course 101 or 102.) Instead of taking all the work indicated above in Latin, the student may substitute six credits in Greek (third-year Greek or above), or six credits in Greek or Roman History, or six credits in ancient Philosophy.

COURSES

No.	Credits	Title	Offered to	Prereq. courses
1	6	Beginning Latin	All	None
	9	MTWThFS	107F	¶
2	6	Selections from Caesar†. . .	All	1
	9	MTWThFS	107F	¶
3	3	Select. from Latin Authors	All	1-2 or 2 or 3 yrs. prep. Latin
	10	MWF	109F	¶
4	3	Select. from Latin Authors‡	All	1-2 or 2 or 3 yrs. prep. Latin
	10	MWF	109F	¶
5	3	Livy	All	3-4 or 4 yrs. prep. Latin
	10	TThS	109F	¶
6	3	Plautus and Terence††. . .	All	3-4 or 4 yrs. prep. Latin
	10	TThS	109F	¶
57	3	Horace	Soph., jr., sr.	6
	9	MWF	109F	Pike
58	3	Pliny	Soph., jr., sr.	57
	9	MWF	109F	Pike
101	3	Advanced Caesar	Jr., sr.	58
	9	TThS	109F	Pike
102	3	Advanced Virgil	Jr., sr.	101
	9	TThS	109F	Pike
105	3	Roman Elegy	Jr., sr., grad.	58
	10	MWF	107F	Granrud
107	3	Letters of Cicero.	Jr., sr., grad.	58
		See statement	107F	Granrud

† Students entering at midyear with one year of Latin may take Course 2.

‡ Students entering at midyear with two or three years of Latin may take Course 4.

†† Students entering at midyear with four years of Latin may take Course 6.

No.	Credits	Title	Offered to	Prereq. courses
108	3	Tacitus	Jr., sr., grad.	58
		11 MWF	107F	Granrud
110	3	Roman Satire	Jr., sr., grad.	58
		See statement	107F	Granrud
9	1	Roman Architecture	Jr., sr.	None
		11 S	107F	Granrud
10	1	Roman Art	Jr., sr.	None
		11 S	107F	Granrud
201-202	3	Lucretius	Grad. and honor	Consult department
		3, 5 T	...	Pike
203-204	3	Seneca	Grad. and honor	Consult department
		See statement	109F	Pike
205-206	6	Roman Comedy	Grad. and honor	Consult department
		3, 4, 5 Th	107F	Granrud

101. ADVANCED COURSE IN CAESAR. Teachers' Course. Selections from books five to seven of the Gallic War; the principles of indirect discourse; intermediate Latin composition; class drill and discussion of various problems connected with secondary school work in Latin. PIKE.

All of the above courses receive credit in the College of Education. For description see College of Science, Literature, and the Arts bulletin, pages 58-59.

MATHEMATICS

Professors GEORGE N. BAUER, FRANCIS P. LEAVENWORTH; Associate Professors WILLIAM H. BUSSEY, ROYAL R. SHUMWAY; Assistant Professors HERMON L. SLOBIN, ANTHONY L. UNDERHILL, WILLIAM D. REEVE; Instructors RALPH M. BARTON, RAYMOND W. BRINK, EDWARD A. T. KIRCHER.

REQUIREMENTS OF THE DEPARTMENT

For *B.A. with Honors*, the general requirements. In junior and senior years any courses above 50 may be presented, except Course 54. Astronomy 101-102, Physics 121-122, and with the consent of the Department of Mathematics, other courses in Astronomy and Physics open only to juniors and seniors may be presented.

For a *Teacher's Certificate*, an average of at least one and one-half honor points per credit hour through Course 51; Course 54; and an average of at least one honor point per credit hour in all other courses taken in the department. Course 6 must be included if not offered for admission.

COURSES

Year courses for freshmen and sophomores. Course 1-2 is a year course open to students who presented for entrance one unit of Elementary Algebra. Course 3a-4b and Course 5-9b are two alternative year-courses open to those who presented for entrance one unit of Elementary Algebra and one-half unit of Higher Algebra. Students who intend to specialize in Mathematics are advised to take Course 5-9b. Course 9a-11b

is a year course for sophomores who had Course 1-2 or Course 3a-4b in the freshman year. Course 11a-51b is a year-course for sophomores who had Course 5-9b in the freshman year.

COURSES

No.	Credits	Title	Offered to	Prereq. courses
1-2	5	Algebra I, II, and Pl. Trig...	Fr., soph.	Elem. Algebra
		8 TWThFS	125F	¶
		9 TWThFS	125F	¶
		11 TWThFS	104F	¶
		2 MTWThF	104F	¶
1b	5	Algebra I	Fr., soph.	Elem. Algebra
		8 TWThFS	105F	¶
3a	3	Algebra II	Fr., soph.	Prep. Higher Algebra
		10 MWF	104F	¶
		10 TThS	104F	¶
		2 MWF	101F	¶
		3 MWF	104F	¶
3b	3	Algebra II	Fr., soph.	Prep. Higher Algebra
		8 MWF	104F	¶
4a	3	Trigonometry	Fr., soph.	3
		8 TThS	104F	¶
4b	3	Trigonometry	Fr., soph.	3
		10 MWF	104F	¶
		10 TThS	104F	¶
		2 MWF	101F	¶
		3 MWF	104F	¶
5	5	Algebra II and Pl. Trig.	Fr., soph.	Prep. Higher Algebra
		9 TWThFS	104F	¶
		10 TWThFS	105F	¶
6	2	Solid Geometry	Soph., jr., sr.	1-2 or 3-4 or 5-9 who have not had Solid Geometry
		11 WF	101F	Bussey
9a	5	Pl. & Sol. Anal. Geom.	Soph., jr., sr.	2 or 4 or 5
		9 TWThFS	101F	Slobin
		2 MTWThF	102F	Brink
9b	5	Pl. & Sol. Anal. Geom.	Fr., soph., jr., sr.	2 or 4 or 5
		9 TWThFS	104F	¶
		10 TWThFS	105F	¶
11a	3	Differential Calculus	Soph., jr., sr.	7 or 9
		11 TThS	102F	Barton
11b	3	Differential Calculus	Soph., jr., sr.	7 or 9
		9 TThS	102F	Bauer
		2 MWF	102F	Brink
51a	3	Integral Calculus	Soph., jr., sr.	11
		11 TThS	101F	Bauer
51b	3	Integral Calculus	Soph., jr., sr.	11
		11 TThS	102F	Slobin
54a	2	Teachers' Course	Jr., sr.	11
		3 TTh	115Ed	Reeve
54b	2	Teachers' Course	Jr., sr.	11
		3 TTh	115Ed	Reeve
62	3	Theory of Equations.....	Jr., sr.	11
		2 MWF	125F	Bussey
71	3	Solid Anal. Gcom.	Jr., sr.	11
		9 MWF	102F	Underhill

No.	Credits	Title	Offered to	Prereq. courses
102	3	Adv. Pl. Anal. Geom.	Jr., sr., grad.	11
		9 MWF	102F	Shumway
107	3	Adv. Differential Calculus....	Jr., sr., grad.	51
		11 MWF	102F	Bussey

Any of the following courses for which a sufficient number of students apply will be given in 1917-18.

106a or 106b	3	Differential Equations..	Sr., grad.	51
119a or 119b	3	Modern Higher Algebra	Sr., grad.	51, 62
125-126	6	Differential Geometry..	Sr., grad.	51
127a or 127b	3	Infinite Series	Sr., grad.	17 cred. besides Alg. and Trig.
140	2	Meth. of Least Squares	Sr., grad.	51

54a,b. TEACHERS' COURSE. Text and assigned readings. Special attention paid to the fundamental principles of Algebra and Geometry. REEVE.

All of the above courses receive credit in the College of Education. For description see College of Science, Literature, and the Arts bulletin, pages 59-61.

MILITARY SCIENCE AND TACTICS

REQUIRED WORK

All physically fit male students are required to take military training during the first two undergraduate years of their course unless they have secured such training at an approved institution endorsed by the Military Department. When this course is entered upon it must be carried to completion as a prerequisite for graduation. No credits are allowed for this work.

ELECTIVE WORK

(a) All juniors and seniors who have completed two years of drill may register for the course required by General Orders No. 49 War Department for members of the Reserve Officers' Training Corps. Such students sign a written agreement to continue in this corps for the remainder of the college course. The completion of this work is a prerequisite to promotion. Any student who for satisfactory reasons is permitted to withdraw from this course must reimburse the War Department for all moneys received.

Juniors and seniors who take the course required by General Orders No. 49, which includes two camps for four weeks each, will receive an allowance of thirty cents per day for subsistence while pursuing the course and will have all expenses paid to and from the encampments. They also are eligible for appointment as temporary second lieutenants in the Infantry branch of the Regular Army for six months with a salary of one hundred dollars per month upon graduation and a commission in the Reserve Corps. The Reserve Corps furnishes officers for Citizens' Training Camps in time of peace, and commission in the United States Volunteers in time of war, such officers having preference for commissions in the

volunteers immediately below experienced officers in the federal service.

The course includes three hours a week of drill and three of study in the Military Department and also includes recommended courses offered by the respective colleges which have a direct bearing upon the work of the Corps, such as Military History and International Law in the Liberal Arts College. The work carries three credits in each semester in the Military Department, and such additional credits as the respective curricula of the colleges may permit.

(b) Any student having completed the two years of required Military Training may continue the work for credit in the third and fourth years. Credit for such work is allowed in practically all of the colleges of the University, the maximum being three credits a year.

MUSIC

Professor CARLYLE SCOTT; Assistant Professor DONALD FERGUSON; Instructor GERTRUDE REEVES; Special Instructors MAXIMILIAN DICK, THADDEUS GIDDINGS, GERTRUDE HULL.

REQUIREMENTS OF THE DEPARTMENT

For a Minor, twelve credits, not including Courses 11-12 and 21-22.

A Major is offered only to those who take the four-year course in Arts and Music.

For the curriculum of the four-year course in Arts and Music, leading to the degree of Bachelor of Arts in Music, see page 63 of the Science, Literature, and the Arts bulletin. The tabular statement and description of courses given below are for the guidance of other students in the College of Science, Literature, and the Arts who desire to elect Music.

COURSES

No.	Credits	Title	Offered to	Prereq. courses
1-2	6	Harmony	Jr., sr.	None
		11 MWF	Mu	Scott
		11 TThS	Mu	Scott
3-4	4	Counterpoint	Jr., sr.	Harmony
		11 TTh	Mu	Ferguson
5-6	4	Composition	Jr., sr.	.....
		Ar Ar	Mu	Ferguson
7-8	2	Analysis	Jr., sr.	Harmony
		12 W	Mu	Scott
9-10	6	History of Music.....	Soph., jr., sr.	None
		9 MWF	Mu	Ferguson
11-12	2	Appreciation of Music.....	Jr., sr.	None
		1 M	Mu	Reeves
13-14	4	Bach-Beethoven	Jr., sr.	None
		1, 2 T	Mu	Ferguson
15-16	4 or 8	Pianoforte	Jr., sr.	.....
17-18		Ar Ar	Mu	Scott, Ferguson, Reeves
19-20	4 or 8	Violin	Jr., sr.	.....
		Ar Ar	Mu	Dick

No.	Credits	Title	Offered to	Prereq. courses
21-22	4	Voice	Jr., sr.	.....
		Ar Ar	Mu	Hull
27-28	6	Public School Music.....	Jr., sr.	.....
		4, 5 WF	Ed	Giddings
29-30	6	Normal Piano	Jr., sr.	.....
		3 TF	Mu	Reeves
31-32	4	Ensemble	Jr., sr.	.....
		12 F	Mu	Dick
33-34	2	Ear Training	Jr., sr.	None
		2 Th	Mu	Reeves
35-36	2	Orchestra	Soph., jr., sr.	.....
		7:30 M	ME	Ferguson
37-38	6	Advanced Normal Piano.....	Sr., grad.	29-30
		4 TF	Mu	Reeves
39-40	6	Adv. Public School Music...	Sr., grad.	27-28
		4, 5 WF	Ed	Giddings

27-28. PUBLIC SCHOOL MUSIC. Preparation for teachers and supervisors of music in public, high schools, and normal schools. Piano playing, singing, and ready reading prerequisite. Four hours in class and one half day weekly in public school visiting. Practice teaching demanded. GIDDINGS.

All of the above courses receive credit in the College of Education. For description see College of Science, Literature, and the Arts bulletin, pages 62-63.

PHILOSOPHY

Professors NORMAN WILDE, DAVID F. SWENSON; Assistant Professor RUPERT C. LODGE.

REQUIREMENTS OF THE DEPARTMENT

For *B.A. with Honors*, besides the general requirements, twenty-four credits in starred courses, including one of the following: 124, 125, 136, 138, 141-142.

Except where otherwise noted, six credits in Psychology may be counted toward the prerequisites.

COURSES

First Semester

No.	Credits	Title	Offered to	Prereq. courses
1	3†	Problems of Philosophy..	Soph., jr., sr.	None
		9 MWF	322F	Swenson
		11 TThS	322F	Lodge
3a	3†	Ethics	Soph., jr., sr.	None
		10 TThS	322F	Wilde
55	3	Esthetics	Jr., sr.	6 credits
		8 TThS	322F	Swenson
63	3	Development of Religion.	Jr., sr.	6 credits
		9 TThS	322F	Swenson
117	3	Advanced Ethics	Jr., sr., grad.	6 credits incl. 3
		10 MWF	322F	Wilde

† 1 and 2 or 3 may be combined as a year course.

No	Credits	Title	Offered to	Prereq. courses
121-122	6	General History of Philos. 11 MWF	Jr., sr., grad. 322F	6 credits Wilde
125	3	Plato	Jr., sr., grad. 316F	9 credits incl. 6 in Phil. Lodge
133	3	Ar Ar Ancient Phil. Theories of the State	Jr., sr., grad. 322F	6 credits in Phil. or Political Science Lodge
141-142	6	2 MWF Seminar in Philosophy...	Jr., sr., grad.	12 credits in Phil.

Second Semester

2	3†	Logic	Soph., jr., sr.	None
	9	MWF	322F	Swenson
	11	TThS	322F	Lodge
3b	3†	Ethics	Soph., jr., sr.	None
	9	MWF	304F	Wilde
20	3	Present Day Philosophy..	Jr., sr.	6 credits
	10	TThS	322F	Wilde
64	3	Philosophy of Religion...	Jr., sr.	6 credits
	9	TThS	322F	Swenson
100	3	Critical Idealism	Jr., sr., grad.	6 credits in Phil.
	11	MWF	311F	Lodge
121-122	3	History of Philosophy...	Jr., sr., grad.	6 credits
	11	MWF	322F	Wilde
124	3	19th Century Philosophy.	Jr., sr., grad.	9 credits incl. 6 in Phil.
	Ar	Ar	316F	Lodge
136	3	Scandinavian Philosophy.	Jr., sr., grad.	9 credits
	4-5:30	WF	322F	Swenson
138	3	Advanced Logic	Jr., sr., grad.	9 credits incl. 2
	10	MWF	322F	Swenson
141-142	3	Seminar in Philosophy..	Sr., grad.	12 credits
	Ar	Ar	316F	Wilde

All of the above courses receive credit in the College of Education. For description see College of Science, Literature, and the Arts bulletin, pages 64-66.

PHYSICAL EDUCATION

FOR MEN

Director LOUIS J. COOKE; Assistant Director WILLIAM K. FOSTER; Instructor JOHN C. WEST; Assistant BOTTLF M. OHNSTAD.

GENERAL STATEMENT

The purpose of the department is to provide all men of the University opportunity for exercise in order to maintain and build up their general health. It also provides special training for the correction of physical defects and functional derangements.

A physical examination is required of all new matriculants, and of all others using the department privileges, at the beginning of the year, and as often during their college course as their physical condition may indicate. Students taking the required work in physical education are

examined also at the close of the year. A study of these records shows a marked improvement in the standard of health of the average student during his college course.

The gymnasium, swimming pool, and baths are open to all students of the University, who are free to use the apparatus and to pursue a course in physical training under the supervision of the director and his assistants.

Those students, taking the required course in physical education who can not swim, must make a reasonable effort as determined by the department, to pass the swimming and life-saving requirements, and will be assigned special hours for instruction.

COURSES

No.	Credits	Title		Offered to	Prereq. courses
1	None	Personal	Hygiene	Fr.	None
		2	MF	201A	Cooke
		3	MF	201A	Cooke
		11	TS	201A	Cooke
		11	WF	201A	Cooke
3-4	None	Gymnasium		Fr.	None
		2	MF	100A	Foster-West
		3	MF	100A	Foster-West
		11	TS	100A	Foster-West
		11	WF	100A	Foster-West
5-6	None	Intermediate	Gymnastics ...	Fr.	None
		2	MF	100A	Foster-West
		3	MF	100A	Foster-West
		11	TS	100A	Foster-West
		11	WF	100A	Foster-West
7-8	2†	Advanced	Leaders	Soph., jr., sr.	1, 3-4, 5-6
		2	MF	100A	Foster-West
		3	MF	100A	Foster-West
		11	TS	100A	Foster-West
		11	WF	100A	Foster-West
9-10	None	Corrective	Gymnastics	All	None
		Ar	Ar	100A	Ohnstad
11-12	None	Wrestling		Soph., jr., sr.	None
		5	MWF	106A	Foster-Ohnstad
13-14	None	Advanced	Gymnastics	Soph., jr., sr.	None
		Ar	Ar		West-Foster
15-16	None	Intermediate	Swimming	All	None
		Ar	Ar		Ohnstad
17-18	None	Advanced	Swimming	All	15-16
		Ar	Ar		Foster-Ohnstad

† Both semesters must be completed before credit is given for the first semester.

For description of the above courses see College of Science, Literature, and the Arts bulletin, pages 67-68.

PHYSICAL EDUCATION

FOR WOMEN

Assistant Professor J. ANNA NORRIS; Instructors MAY S. KISSOCK,¹ VALERIA G. LADD, GERTRUDE B. SCHILL, ALICE H. TOLG, LILLIAN HANSEN.

INTRODUCTORY STATEMENT

This department aims primarily to promote the health of the women students. It gives physical examination and advice to all on entrance; conducts yearly consultations with, and examines when necessary, all upper class students; plans systematically to keep in touch with those students whose physical condition suggests the need of supervision; gives courses in hygiene; organizes physical work to meet the varying needs and physical tastes of students; coöperates closely with the Woman's Athletic Association in encouraging and organizing athletic sports; holds regular office hours for the purpose of consultation with all students who desire its advice; and investigates cases of illness which come to its attention.

Work in this department is required of all newly entering students (See Courses 1-2 and 11), and of all students permitted, for reasons connected with their physical condition, to carry less than the minimum number of credit hours. Sophomores required to register for swimming; this requirement waived in case student can pass examination. Physical examinations for consultations required annually of all students.

Elective classes arranged in gymnastics, dancing, swimming, field hockey, basket-ball, baseball, and other organized games.

For a teacher's certificate, minor recommendation, the following courses must be taken: 1-2, 3-4, 5-6, 13, 15-16, 21-22, 31-32, 33-34. Course 5-6 must be taken in senior year.

Six credits the maximum number that can be gained by taking courses in exercise (Courses 3-4, 5-6); only one of these courses may be taken for credit in a semester.

COURSES

No.	Credits	Title		Offered to	Prereq. courses
1-2	None	Elem.	Physical Training...	Required of all new students	None
		10	TThS	3, 151, 153WGm	¶
		11	MWF	3, 151, 153WGm	¶
		11	TThS	3, 151, 153WGm	¶
		3	MWF	3, 151, 153WGm	¶
3-4	3	Intermediate	Phys. Training	Soph., jr., sr.	Equivalent of 1-2
		3	TTh	153WGm	Schill
		One other hour to be arranged			
5-6	3	Advanced	Phys. Training...	Jr., sr.	3-4, permission of director
		4	TTh	153WGm	Ladd
		One other hour to be arranged			

¹ On leave of absence 1917-18.

No.	Credits	Title	Offered to	Prereq. courses
11	None	Preliminary Hygiene	Required of all new students	None
		12 M	201 WGm	¶
		2 T	201 WGm	¶
		11 W	201 WGm	¶
		8 S	201 WGm	¶
13	3	Personal Hygiene	Soph., jr., sr.	An. Biol. 1-2
		9 TThS	201 WGm	Norris
14	3	Hygiene of the Family....	Jr., sr.	13
		9 TThS	201 WGm	Norris
15-16	6	Principles of Phys. Educ...	Sr.	1-2, 3-4, 21-22, 31-32, 33-34
		Lect. 10 MWF	201 WGm	Ladd, Schill, Tolg
		Lab. 2 MWF	3, 151, 153 WGm	Ladd, Schill, Tolg
21-22	None	Elem. Dancing	All	None
		4 MWF	153 WGm	Ladd
31-32	None	Folk Dancing & Org. Games	All	None
		10 WF	151 WGm	Ladd, Schill
		2 TTh	151 WGm	Ladd, Schill
33-34	None	Hockey, Basket & Base Ball	All	Permission of director
		4 MW	151 WGm	Schill
		4 TTh	151 WGm	Schill
43-44	None	Elementary Swimming	Required of soph. who need instr. in swimming	None
		2 MF	51 WGm	Hansen
		2 TTh	51 WGm	Hansen
		3 MF	51 WGm	Hansen
		3 TTh	51 WGm	Hansen
		4 MF	51 WGm	Hansen

The natatorium will be open and instruction will be given to beginners or advanced students at 2:30 MTThF, 3:30 MTThF, 4:30 MThF. General swimming (without instruction) at 12 TTh and 5 MW.

Roller skating at 1:00 MWF.

All of the above courses receive credit in the College of Education. For description see College of Science, Literature, and the Arts bulletin, pages 68-69.

PHYSICS

Professors HENRY A. ERIKSON, ANTHONY ZELNY; Associate Professor LOUIS W. MCKEEHAN; Assistant Professor JOHN T. TATE; Instructors ERNEST O. DIETERICH, PAUL E. KLOPSTEG.

REQUIREMENTS OF THE DEPARTMENT

For *B.A. with Honors*, the general requirements; work chosen from any courses above 40, except 90; and any course in mathematics open only to juniors and seniors if approved by the department. Mathematics 106, 107, 108, 140 have already been thus approved. Thesis in connection with any course in Physics above 150.

For a *Teacher's Certificate*, fourteen credits, including Course 90.

Courses 21, 22, 31, 42, 44, 161, 52, 54, with prerequisites in mathematics comprise a three-year course in Physics beginning with the freshman year.

It is designed to meet the needs of those who intend to take up the teaching of Physics or who are planning to enter the field of industrial research. It is recommended to those students desiring honors in Physics. Students who have completed courses 1, 2, 3, 4, or Courses 7, 8, 9, 10, may continue with the second year of this course after conference with the department.

COURSES

No.	Credits	Title		Offered to	Prereq. courses
1	3	General Physics		Soph., jr., sr.	Math. 2 or 4 or reg. in Math. 2 or 4
		1	M	30Ph	Zeleny
		8	TTh	17Ph	Klopsteg
		9	TTh	17Ph	Zeleny
		10	TTh	17Ph	Zeleny
		11	TTh	17Ph	Klopsteg
		11	WF	17Ph	Klopsteg
2	3	General Physics		Soph., jr., sr.	1 or 7
		1	M	30Ph	Zeleny
		8	TTh	17Ph	Klopsteg
		9	TTh	17Ph	Zeleny
		10	TTh	17Ph	Zeleny
		11	TTh	17Ph	Klopsteg
		11	WF	17Ph	Klopsteg
3	1	General Lab. Practice.....		Soph., jr., sr.	Registration in 1
		Ar	Ar	23Ph	Ar
4	1	General Lab. Practice.....		Soph., jr., sr.	See statement
		Ar	Ar	23Ph	Ar
7	4	General Physics		Soph., jr., sr.	Math. 2 or 4, see statement
		1	F	30Ph	Erikson
		8	MWF	17Ph	Tate
8	4	General Physics		Soph., jr., sr.	7, see statement
		1	F	30Ph	Erikson
		8	MWF	17Ph	Tate
9	1	General Lab. Practice.....		Soph., jr., sr.	See statement
		Ar	Ar	23Ph	Ar
10	1	General Lab. Practice.....		Soph., jr., sr.	See statement
		Ar	Ar	23Ph	Ar
21	3	Elements of Mechanics...		Fr., soph.	High School Physics, Math. 2 or 4 or reg. in Math. 2 or 4
		Lect. Ar	Ar	Ar	Tate
		Lab. Ar	Ar	16Ph	Tate
22	3	Elements of Mechanics...		Fr., soph.	21, Math. 9 or reg. in Math. 9b
		Lect. Ar	Ar	Ar	Tate
		Lab. Ar	Ar	16Ph	Tate
31	3	Acoustics		Soph., jr., sr.	See statement
		9	TThS	30Ph	Erikson
42	3	Heat		Soph., jr., sr.	2, 8, or 22, Math. 2 or 4
		Ar	Ar	Ar	Ar
44	1	Experiments in Heat.....		Soph., jr., sr.	Registration in 42
		Ar	Ar	Ar	Ar

No.	Credits	Title		Offered to	Prereq. courses
52	3	Light	.....	Soph., jr., sr.	2, 8, or 22, Math. 2 or 4
		Ar	Ar	Ar	Ar
54	1	Experiments in Light	.....	Soph., jr., sr.	Reg. in 52
		Ar	Ar	Ar.Ph	Erikson
81	2	Physical Manipulation and Laboratory Technique ..	2, 3, 4 TTh	Soph., jr., sr. 2Ph	2 & 4, 8 & 10, or 22 McKeehan
82	2	Physical Instruments of Precision	2, 3, 4 TTh	Soph., jr., sr. 2Ph	81 McKeehan
90	2	Teachers' Course	.....	Sr.	2 & 4, 8 & 10, or 2 years of physics
		Ar	Ar	Ar	Klopsteg
121-122	6	Dynamics	.....	Jr., sr., grad.	2 or 8 or (22) and Math. 51
		Ar	Ar	17Ph	Tate
155	3	Spectrometry	.....	Jr., sr., grad.	52 and 82
		Ar	Ar	4Ph	Erikson
161	4	Electricity and Magnetism.	.....	Jr., sr., grad.	2 & 4, 8 & 10, or 22, Math. 51
		Ar	Ar	Ar.Ph	Zeleny
162	3	Electrical Measurements ..	10, 11 TTh	Jr., sr., grad. Ar 31Ph	161, 2 & 4, or 8 & 10 Zeleny Zeleny
163	2	Electrical Measurements ..	.....	Jr., sr., grad. Ar	161, 2 & 4, or 8 & 10 Zeleny
166	3	Elec. Meas. of Precision..	3, 4, 5 MF	Jr., sr., grad. 31Ph	162 or 163 Zeleny
174	3	Radioactivity and Roentgen Rays .....	.....	Sr., grad.	2 and 4
		Ar	Ar	Ar	McKeehan
177	3	Radioactivity	.....	Sr., grad.	8 cr. in Physics and Math. 11
		4 MWF	.....	15Ph	McKeehan
178	3	Radioact. Measurements ..	.....	Sr., grad. 177	177
		Ar	Ar	15Ph	McKeehan
181	3	Adv. Phys. Measurements.	.....	Sr., grad.	82 or 155 or 166 or 178
		2, 3, 4 MW	.....	Ar	Ar
182	3	Adv. Phys. Measurements.	.....	Sr., grad.	181
		2, 3, 4 MW	.....	Ar	Ar
191a	3	Elem. Phys. Investigation.	.....	Sr., grad.	82 or 155 or 166 or 178
		2, 3, 4 MW	.....	Ar	Ar
192a	3	Elem. Phys. Investigation.	.....	Sr., grad.	82 or 155 or 166 or 178
		2, 3 MWF	.....	Ar	Ar
191b	3	Elem. Phys. Investigation.	.....	Sr., grad.	191
		2, 3 MWF	.....	Ar	Ar
192b	3	Elem. Phys. Investigation.	.....	Sr., grad.	191
		2, 3, 4 MW	.....	Ar	Ar

90. TEACHERS' COURSE. Methods of presentation; selection of lecture and laboratory experiments; laboratory management. KLOPSTEG.

All of the above courses receive credit in the College of Education. For description see College of Science, Literature, and the Arts bulletin, pages 69-71.

POLITICAL SCIENCE

Professors WILLIAM A. SCHAPER, CEPHAS D. ALLIN, JEREMIAH S. YOUNG;
 Instructor WILLIAM ANDERSON; Teaching Fellow RINEHART J.
 SWENSON.

REQUIREMENTS OF THE DEPARTMENT

For a Minor, twelve credits.

For a Major, twenty-four credits.

For B.A. with Honors, see general requirements.

For a Teacher's Certificate in Government, courses 1, 6, and 7 in Political Science and eighteen credits in History.

The Departments of Economics, Political Science, History, and Sociology and Anthropology constitute a social science group. The subjects are intimately interrelated, and they are all of especial importance to students who intend to engage in law, business, public service at home or abroad, journalism, the work of charities and corrections, or to give instruction in one of the social sciences. Students who are interested in the work of any one of the departments of the social science group ought to be familiar with at least the elements of the subjects offered in the other departments. A student who takes his major in any one of them ought to have more than the elements of the others.

COURSES

No.	Credits	Title	Offered to	Prereq. courses
<i>Introductory Courses</i>				
1a	3	American Government	Soph., jr., sr.	None
		9 MWF	109MA	Swenson
		9 TThS	102MA	Schaper
		10 MWF	209MA	Anderson
		11 TThS	202MA	Young
		11 MWF	109MA	Anderson
		2 MWF	102MA	Young
1b	3	American Government	Soph., jr., sr.	None
		9 TThS	109MA	Anderson
		10 MWF	202MA	Anderson
		2 MWF	209MA	Swenson
<i>General Courses</i>				
3	3	Comparative Government	Soph., jr., sr.	1
		10 TThS	102MA	Anderson
5	3	European Municipal Admin....	Soph., jr., sr.	1
		11 MWF	213MA	Schaper
6	3	American Municipal Admin....	Soph., jr., sr.	1
		11 MWF	109MA	Schaper
7a	3	State and Local Government..	Soph., jr., sr.	1
		9 TThS	109MA	Anderson
7b	3	State and Local Government..	Soph., jr., sr.	1
		11 TThS	202MA	Young
		2 MWF	202MA	Anderson
51	3	Business Law, I.	Jr., sr.	6 cred. in Pol. Sci., or 6 in Econ., or 3 in each
		9 MWF	202MA	Young

No.	Credits	Title	Offered to	Prereq. courses
52	3	Business Law, II..... 9 MWF	Jr., sr. 202MA	51 Young
54	3	Latin American Governments.. 9 TThS	Jr., sr. 102MA	6 credits Schaper
58	3	Amer. Diplomatic Problems.... 11 TThS	Jr., sr. 213MA	6 credits Anderson
<i>Special Courses</i>				
25	3	American Govt. (Eng.)..... 11 TThS	Jr., sr. Ar	None
26	3	Business Law (Eng.)..... 8 TThS	Jr., sr. Ar	25
28	3	Business Law (Agr.)..... 1 MWF	Jr., sr. Ar	1 or 6 credits in Eco- nomics
56-57	3	Teachers' Course 4 MW	Jr., sr. Lib.	See statement Schaper
<i>Advanced Courses</i>				
101	3	Constitutional Law 9 MWF	Jr., sr., grad. 213MA	6 credits Schaper
102	3	Modern Political Thought..... 9 MWF	Jr., sr., grad. 213MA	6 credits Schaper
105	3	Comparative Administration ... 10 MWF	Jr., sr., grad. 102MA	6 credits Young
106	3	Legislative Power and Methods 10 MWF	Jr., sr., grad. 102MA	6 credits Young
108	3	Police Power 3 MWF	Jr., sr., grad. 213MA	6 credits Young
109	3	Diplomacy 2 MWF	Jr., sr., grad. 213MA	6 credits or 1 and History 10
110	3	International Law 2 MWF	Jr., sr., grad. 102MA	1 and 3 or 58 or 109 Allin
114	3	Govt. of the British Empire.. 10 TThS	Jr., sr., grad. 102MA	6 credits or 1 and History 7
133	3	Anct. Phil. Theories of the State 2 MWF	Jr., sr., grad. 322F	6 credits in either Po- litical Science or Philosophy
201-202		Seminar 3-4 Th	Sr., grad. 213MA	Lodge Major in Political Sci. Schaper et al.

56-57. TEACHERS' COURSE. Lectures on teaching Government in the secondary schools, given in coöperation with the Department of History and credited as part of History 56-57. SCHAPER.

All of the above courses receive credit in the College of Education. For description see College of Science, Literature, and the Arts bulletin, pages 72-74.

PSYCHOLOGY

Professors ROBERT M. YERKES, MELVIN E. HAGGERTY; Associate Professor HERBERT WOODROW; Assistant Professors JOSEPH PETERSON, HENRY T. MOORE; Instructor KARL S. LASHLEY; Teaching Fellow J. D. Dodson.

REQUIREMENTS OF THE DEPARTMENT

For *B.A. with Honors*, besides the general requirements, twenty-four credits in starred courses. Starred courses in Educational Psychology and, to the extent of six hours, in philosophy, may be counted in partial fulfillment of this requirement.

COURSES

First Semester

No.	Credits	Title	Offered to	Prereq. courses
1	3	General Psychology	Soph., jr., sr.	None
		4 F	...	Yerkes
		8 MW	321F	Peterson
		9 MW	321F	Yerkes
		9 TTh	321F	Moore
		9 TTh	3044F	Lashley
		10 MW	321F	Moore
		10 TTh	321F	Moore
		11 MW	321F	Dodson
		1 MW (Farm)	Ar (Farm)	Woodrow
		2 MW	321F	Lashley
		2 TTh	321F	Peterson
		3 MW	321F	Lashley
		3 TTh	321F	Peterson
101a	3	Experimental Psychology ...	Jr., sr., grad	1-2
		4 T	316F	Woodrow
		2, 3 TTh	318F	Woodrow
103	3	Comparative and Genetic Psychology	Jr., sr., grad	1-2
		11 TThS	321F	Yerkes and Lashley
105	2	Mental Retardation	Jr., sr., grad	1-2
		4, 5 Th	321F	Moore
107	3	Social Psychology	Jr., sr., grad	1-2
		3 MWF	322F	Moore
111	3	History of Psychology.....	Sr., grad.	9 credits
		8 TThS	321F	Peterson
115	3	Seminar in Experimental and Physiological Psychology..	Sr., grad.	12 credits
		Ar	316F	Woodrow, Peterson
117	3	Seminar in Comparative and Genetic Psychology	Sr., grad.	12 credits
		Ar	316F	Yerkes and Lashley

Second Semester

2	3	General Psychology	Soph., jr., sr.	None
		(See 1st semester)		
101b	3	Experimental Psychology ...	Jr., sr., grad.	1-2
		4 T	316F	Woodrow
		2, 3 TTh	318F	Woodrow
104	3	Comparative and Genetic Psychology	Jr., sr., grad.	1-2
		11 TThS	321F	Yerkes and Lashley
108	3	Applied Psychology	Jr., sr., grad.	1-2
		3 MWF	322F	Moore
110	3	Abnormal Psychology	Jr., sr., grad.	1-2
		8 TThS	321F	Peterson

No.	Credits	Title	Offered to	Prereq. courses
116	3	Seminar in Experimental and Physiological Psychology.. Ar Ar	Sr., grad. 316F	12 credits Woodrow and Peterson
118	3	Seminar in Comparative and Genetic Psychology Ar Ar	Sr., grad. 316F	12 credits Yerkes and Lashley

All of the above courses receive credit in the College of Education. For description see College of Science, Literature, and the Arts bulletin, pages 64-66.

RHETORIC AND PUBLIC SPEAKING

Professor JOSEPH M. THOMAS; Assistant Professors DANIEL FORD, HALDOR GISLASON, CHARLES W. NICHOLS, SIDNEY F. PATTISON, ANNA H. PHELAN, FRANK M. RARIG,¹ CHARLES E. SKINNER, HELEN A. WHITNEY; Instructors ELIZABETH HAWTHORN, CYRIL A. HERRICK, JAMES T. HILLHOUSE, ELIZABETH JACKSON, ERNEST P. KUHL, MARTIN B. RUUD, FRANK SMOYER, ARTHUR J. TIEJE, HOWARD T. VIETS; Assistant RAY M. WILCOX.

REQUIREMENTS OF THE DEPARTMENT

For a Major, twenty-four credits, which may include not more than six credits in Public Speaking.

For a Minor, twelve credits in addition to Course 1-2, including Courses 11-12 or 15-16.

For a Minor in Public Speaking, twelve credits in Public Speaking.

For B.A. with Honors, the general requirements. A reading knowledge of either Latin, French, or German. At least fifteen credits in departmental starred courses, four of these credits to be in Course 119-120.

For a Teacher's Certificate in English, (a) English as the major subject of teaching: Rhetoric 1-2, either 11-12 or 15-16, and 41-42; English 1-2, 3, 5 or 7, and 28. (b) English as a minor subject of teaching: Rhetoric 1-2, and either 11-12 or 15-16; English 1-2, and 3. In order to be recommended, a student must secure an average of at least one and one-half honor points for each credit hour of all the work taken in the Departments of English and Rhetoric.

For a Teacher's Certificate in Public Speaking, a student must satisfy the Department that he is actively interested in some phase of Public Speaking either as a member of a literary or debating society, or as a participant in a contest or dramatic performance, or as a lecturer; must have the approval of the Department of Rhetoric and Public Speaking and must complete the following courses: Rhetoric 1-2, 11-12 or 15-16, 41-42, and six additional hours in Public Speaking.

¹ On leave of absence 1917-18.

COURSES

No.	Credits	Title	Offered to	Prereq. courses
1-2	6	Composition and Rhetoric..	Fr.	None
	8	MWF		To be assigned on registration
	9	MWF		To be assigned on registration
	10	MWF		To be assigned on registration
	11	MWF		To be assigned on registration
	2	MWF		To be assigned on registration
	3	MWF		To be assigned on registration
	8	TThS		To be assigned on registration
	9	TThS		To be assigned on registration
	10	TThS		To be assigned on registration
	11	TThS		To be assigned on registration
1b	3	Composition and Rhetoric..	Fr.	None
	11	MWF	306F	¶
	3	MWF	305F	¶
	11	TThS	303F	¶
2a	3	Composition and Rhetoric..	Fr.	None
	11	MWF	306F	¶
	3	MWF	305F	¶
3-4	6	Composition for Engineers. See program for the College of Engineering.	Fr. Eng	None
11-12	6	Exposition, Description, Nar- ration	Soph., jr., sr.	1-2
	9	MWF	311F	Hillhouse
	11	MWF	303F	Skinner
	2	MWF	311F	Ruud
	9	TThS	311½F	Whitney
	10	TThS	306F	Phelan
15-16	6	Exposition and Argument..	Soph., jr., sr.	1-2
	9	MWF	303F	Ford
	11	TThS	305F	Tieje
31	2	Technical Writing	Sr. Eng.	3-4
		See program for the College of Engineering.		
41-42	6	Public Speaking	Soph., jr., sr.	1-2
	9	MWF	308F	¶
	2	MWF	308F	Wilcox
	8	TThS	308F	Wilcox
	9	TThS	308F	Gislason
	10	TThS	308F	¶
	11	TThS	308F	¶
41	3	8 MWF	308F	¶
45	3	Argumentation and Debate	Soph., jr., sr.	See note
	10	MWF	308F	Gislason
47	3	Advanced Debate		See note
	Ar		308F	Gislason
80a	3	Teachers' Course	Jr., sr.	See note
	3-4:30	TTh	206Ed	Inglis
80b	3	Teachers' Course	Jr., sr.	See note
	3-4:30	TTh	206Ed	Inglis
81-82	6	Interpretative Reading	Jr., sr.	1-2, 41-42
	11	MWF	308F	Wilcox
84	3	Advanced Public Speaking.	Jr., sr.	1-2, 41-42
	3	MWF	308F	Gislason
102	3	Versification	Jr., sr., grad.	See note
	10	TThS	302F	Nichols

No.	Credits	Title	Offered to	Prereq. courses
103-104	6	Studies in Structure and Style	Jr., sr., grad.	1-2, 11-12, or 15-16
		2 MWF	303F	Ford
107	3	Imitative Writing	Jr., sr., grad.	See note
		11 MWF	304F	Thomas
110	3	Short-story Writing	Jr., sr., grad.	See note
		11 MWF	304F	Thomas
111-112	6	Essay Writing	Jr., sr., grad.	1-2, 11-12, or 15-16
		11 TThS	302F	Pattison
115-116	6	Dramatic Technique	Sr., grad.	See note
		Rec. 2 WF		
		Lab. Ar Ar	302F	Skinner
119-120	4	Seminar in Writing.....	Sr., grad.	See note
		2-4 T	302F	Thomas
201-202	6	Seminar in Rhetoric.....	Sr., grad.	See note
		2-4 Th	302F	Thomas

80a,b. TEACHERS' COURSE. Methods of teaching English in high schools. Course of study, textbooks, and equipment; visits to high schools; theme-correcting. Open to juniors, seniors, graduates, qualifying for a major recommendation in English. Credit only in Education. INGLIS.

All of the above courses receive credit in the College of Education. For description see College of Science, Literature, and the Arts bulletin, pages 74-76.

ROMANCE LANGUAGES

Professors EVERETT W. OLMSTED, COLBERT SEARLES; Assistant Professors FRANCIS B. BARTON, JULES FRELIN, RUTH S. PHELPS, EDWARD H. SIRICH; Instructors HARRY E. ATWOOD, GEORGE S. BARNUM, PEDRO HENRÍQUEZ UREÑA, WILLIAM D. MAYNARD; Teaching Fellows HERBERT CLEFTON, ENRIQUE JIMÉNEZ, CHARLES MILLER.

REQUIREMENTS OF THE DEPARTMENT

For *B.A. with Honors*, general requirements; a reading knowledge of Latin or German with two years work in Spanish or Italian. In the Junior year, Courses 61-62, 63-64, 75-76, 101-102; in the Senior year, Courses 103-104, 107-108, 109-110, 115-116 (or 117-118). Substitutions for these courses may be granted by the Department in special cases. Alternation of courses required in the Junior and Senior years is allowable.

For *Major Recommendation for Teacher's Certificate*, in addition to Courses 1a and 3a, twenty-six credits.

For *Minor Recommendation for Teacher's Certificate*, in addition to Courses 1a and 3a, twelve credits in one Romance Language.

Prerequisite for Teachers' Course, in addition to Course 5-6, one Conversation-Composition Course and one Literary Course.

COURSES

No.	Credits	Title	Offered to	Prereq. courses
1a	6	Beginning French	All	None
		8 MTWThFS	201F	Maynard
		9 MTWThFS	201F	Frelin, Atwood, Sirich
		10 MTWThFS	227F	Searles, Cleifton
		11 MTWThFS	226F	Barnum, Miller
1b	6	Beginning French	All	None
		10 MTWThFS	205F	Atwood
		11 MTWThFS	227F	Frelin
2a	3	Beg. French (2nd half of 1a) (Not given in 1917- 1918)	All	1 yr. H. S. French
		9 MWF		
3a	6	Intermed. French	All	1a or equiv.
		10 MTWThFS	205F	Barnum
		11 MTWThFS	25F	Frelin
3b	6	Intermed. French	All	1a or equiv.
		8 MTWThFS	201F	Maynard
		9 MTWThFS	201F	Frelin, Atwood, Sirich
		10 MTWThFS	227F	Searles, Cleifton
		11 MTWThFS	226F	Barnum
4	6	Survey French Lit.	All	3a or equiv.
		9 MTWThFS	227F	Barnum
5-6	6	Survey Fr. Lit. (year course)	All	3a or equiv.
		9 TThS	202F	.....
		10 TThS	202F	Phelps
		11 TThS	5F	Atwood, Maynard
		2 MWF	15F	Barton
7-8	2	Element. French Convers.	All	3a or equiv.
		9 TTh	227F	Barton
		3 MW	227F	Frelin
9-10	2	Element. French Compos..	All	3a or equiv.
		9 S	227F	Barton
		3 F	227F	Frelin
31a	6	Beginning Spanish	All	None
		9 MTWThFS	301F	Maynard
		10 MTWThFS	25F	Henríquez
31b	6	Beginning Spanish	All	None
		10 MTWThFS	25F	Barton
33-34	6	Beginning Spanish (year course)	All	None
		8 TThS	202F	Barnum
		11 MWF	201F	Olmsted
		11 TThS	205F	Sirich
35a	6	Intermed. Spanish	All	31a or equiv.
		See statement		
35b	6	Intermed. Spanish	All	31a or equiv.
		9 MTWThFS	15F	Maynard
		10 MTWThFS	125F	Henríquez
37-38	6	Intermed. Span. (year course)	All	31a or equiv.
		10 TThS	201F	Sirich
39-40	6	Survey of Span. Lit. ...	All	35a or equiv.
		9 MWF	227F	Henríquez
41-42	2	Elemen. Spanish Convers.	All	35a or equiv.
		2 MW	226F	Jiménez

No.	Credits	Title	Offered to	Prereq. courses
43-44	2	Elemen. Spanish Compos. 2 F	All 226F	35a or equiv. Jiménez
51-52	6	Beginning Italian 9 MWF	All 202F	None Phelps
53-54	6	Represent. Italian Authors 11 TThS	Soph., jr., sr. 201F	51-52 or equiv. Phelps
61-62	2	Advanced French Convers. 11 TTh	Jr., sr. 202F	7-8 or equiv. LeCompte
63-64	2	Advanced Fr. Compos. .. 11 S	Jr., sr. 202F	9-10 or equiv. LeCompte
75-76	6	French Lit.: 19th Century 11 TThS	Soph., † jr., sr. 15F	5-6 or equiv. Barton
101-102	6	French Lit.: 18th Century 11 MWF	Jr., sr., grad. 202F	5-6 or equiv. Searles
103-104	6	French Lit.: 17th Century 10 MWF	Jr., sr., grad. 201F	5-6 or equiv. Olmsted
105-106	6	French Lit.: 16th Century 11 MWF	Jr., sr., grad. Seminar	101-102; 103-104 or equiv. Sirich
107-108	4	French Oral Diction..... 10 MW	Jr., sr., grad. 202F	61-62 or equiv. LeCompte
109-110	2	French Syntax 10 F	Jr., sr., grad. 202F	63-64 or equiv. LeCompte
111-112	4	Lectures in French..... 2 MW	Jr., sr., grad. 201F	5-6; 61-62 or equiv.
113-114	4	Fr. Literature: Classicism 11 TTh	Sr., grad. Seminar	103-104 or equiv. Searles
115-116	4	French Lyric Poetry..... (Not given in 1917-18)	Sr., grad.	103-104 or equiv.
117-118	4	French Dramatic Lit. ... 10 TTh	Sr., grad. Seminar	103-104 or equiv. Olmsted
131-132	2	Advanced Span. Convers. 2 MW	Jr., sr., grad. 227F	41-42 or equiv. Henríquez
133-134	2	Adv. Spanish Compos. .. 2 F	Jr., sr., grad. 227F	43-44 or equiv. Henríquez
135-136	2	Spanish Novel (Not given in 1917-18)		
137-138	..	Spanish Literature 19th Century (Not given in 1917-18)		
147-148	4	Spanish Lectures 3 MW	Jr., sr., grad. 201F	41-42; 43-44; or equiv. Henríquez
151-152	4	Dante, Petrarch, Boccaccio	Jr., sr., grad.	51-52 or equiv. and either 53-54; 5-6 or English 1
153-154	2	2 MW Dante, (In English).....	202F Jr., sr., grad.	Phelps Hist. 1-2 and either Engl. 1 or Fr. 5-6. Prereq. for persons taking in addition Course 151-152 same as listed for 151-152
161-162	2	2 F Teachers' Course 2 Th	202F Jr., sr., grad. 201F	Phelps See above Barton, et al.

† Who have had the five years' preparation required.

NOTE: Course 7-8 may be taken only with 9-10. 9-10 may be taken separately. Course 41-42 may be taken only with 43-44. 43-44 may be taken separately. Course

61-62 may be taken only with 63-64. 63-64 may be taken separately. Course 151-152 may be taken only with 153-154. 153-154 may be taken separately. Courses 1, 3, 31, 35, 4, are double courses. Students are advised to take Course 75-76 as a natural preparation for Courses 101-102 and 103-104. Permission to register for courses from 75-76 to 161-162 inclusive may be granted by the department in special cases. Both semesters of any year course must be completed before credit is allowed for the first semester. The preceding statement applies also to Courses 1a and 3b for freshmen and Courses 31a and 35b for freshmen.

161-162. TEACHERS' COURSE. Lectures and discussions on methods, test-books, etc. BARTON, et al.

All of the above courses receive credit in the College of Education. For description see College of Science, Literature, and the Arts bulletin, pages 77-79.

SCANDINAVIAN

Professors GISLE BOTHNE, ANDREW A. STOMBERG.

REQUIREMENTS OF THE DEPARTMENT

For a Minor, twelve credits, not including Courses 1 and 5.

For a Major, twenty-four credits.

For B.A. with Honors, the general requirements, and six credits of Scandinavian in addition to what is required for a major.

COURSES

No.	Credits	Title	Offered to	Prereq. courses
1	6†	Beginning Norwegian.....	All	None
	8	MTWThFS	206F	¶
2	6†	Intermediate Norwegian...	All	1
	8	MTWThFS	206F	¶
3-4	6†	Advanced Norwegian	Soph., jr., sr.	2
	9	TThS	110F	Bothne
5	6†	Beginning Swedish.....	All	None
	9	MTWThFS	206F	Stomberg
6	6†	Intermediate Swedish.....	All	5
	9	MTWThFS	206F	Stomberg
7-8	6	Advanced Swedish	Soph., jr., sr.	6
	8	MWF	205F	Stomberg
9	2	Beginning Norwegian	See statement	None
10	2	Advanced Norwegian	See statement	9
11-12	4	Norwegian Literature	See statement	10
	4, 5	T	206F	Bothne
13-14	6	History of North. Europe.	Soph., jr., sr.	Consult department
	11	MWF	206F	Stomberg
101-102	6	Modern Norwegian Lit. ...	Jr., sr., grad.	3-4
	10	TThS	206F	Bothne
103	3	Earlier Norwegian Lit. ...	Sr., grad.	101-102
	11	TThS	206F	Bothne
104	2	Henrik Ibsen	Sr., grad.	101-102
	11	TTh	206F	Bothne
107-108	6	Swedish Literature	Jr., sr., grad.	7-8
	2	MWF	206F	Stomberg

† Both semesters must be completed before credit is given for the first semester.

‡ Freshmen must complete intermediate course before credit is given for beginning course.

No.	Credits	Title	Offered to	Prereq. courses
109	2	Strindberg	Sr., grad.	107-108
		Ar Ar	206F	Stomberg
110	2	Teachers' Course in Nor-		
		wegian	Sr., grad.	3-4
		4 & 5 Th	206F	Bothne
113-114	4	Old Norse (Icelandic) ...	Sr., grad.	See statement
		Ar Ar	206F	Bothne
116	2	Teachers' Course in Swed-		
		ish	Sr., grad.	7-8
		Ar Ar	206F	Stomberg

110. TEACHERS' COURSE IN NORWEGIAN. For students who expect to teach Norwegian in the high schools. BOTHNE.

116. TEACHERS' COURSE IN SWEDISH. For students who expect to teach Swedish in the high schools. STOMBERG.

All of the above courses receive credit in the College of Education. For description see College of Science, Literature, and the Arts bulletin, pages 79-80.

SOCIOLOGY AND ANTHROPOLOGY

Professors ALBERT ERNEST JENKS, ARTHUR J. TODD; Associate Professor LOUIS L. BERNARD; Assistant Professor HENRY T. MOORE; Lecturers FRANK J. BRUNO, OTTO W. DAVIS, ARTHUR H. TAYLOR; Superintendents of State Board of Control Institutions.

REQUIREMENTS OF THE DEPARTMENT

For a Minor, twelve credits.

For a Major, twenty-four credits.

For B.A. with Honors, see general requirements.

For Recommendation for Teaching, credits in the following courses: 1, 4, 6, and two advanced courses.

Modern university education is not complete unless the graduate has obtained the social point of view. To this end the department offers elementary courses dealing with peoples, with social forces, institutions, and movements. Its more advanced courses are designed especially for students majoring in the Social Sciences; namely, Sociology and Anthropology, Economics, History, and Political Science.

COURSES

No.	Credits	Title	Offered to	Prereq. courses
<i>Introductory Courses</i>				
1a	3	General Introduction	Soph., jr., sr.	None
		8 MWF	203He	Bernard
		10 MWF	9F	Jenks
		10 TThS	9F	Todd
		2 MWF	301F	Bernard
1b	3	2 MWF	301F	Bernard
4	3	Cultural Anthropology ...	Soph., jr., sr.	1
		10 MWF	9F	Jenks

COLLEGE OF EDUCATION

No.	Credits	Title	Offered to	Prereq. courses
6	3	Social Reform Movements. 10 TThS	Soph., jr., sr. 9F	1 Todd
<i>General Courses</i>				
51	3	Treatment of Dependents and Defectives 8 TThS	Jr., sr. 9F	1, or 6 Bruno
52	3	Child Welfare 8 TThS	Jr., sr. 9F	51 Taylor
53	3	Treatment of Delinquents. 9 MWF	Jr., sr., grad. 9F	1 or 6 & Psychol. 1-2 Todd
55	2	Housing Problems 8 MW	Jr., sr. 9F	1 and 6 Davis
14	3	Rural Community 8 MWF	Jr., sr. 203He	1 Bernard
<i>Advanced Courses</i>				
102a	3	Social Theory 9 TThS	Jr., sr., grad. 9F	1, 9 or 10, & 1 other Bernard
104	2	State Care of Dep., Def., and Delinquents 3, 4 F	Jr., sr., grad. 9F	51, and 52 or 53 Todd and Supts.
107	3	Social Psychology 3 MWF	Jr., sr., grad. 322F	See statement Moore
110a	3	Physical Anthropology ... 2 MWF	Jr., sr., grad. 9F	See bulletin statement Jenks
112	3	American Negro 2 MWF	Jr., sr., grad. 9F	1 and two others Jenks
113	3	American People 11 MWF	Jr., sr., grad. 9F	1 and two others Jenks
114	3	American People (cont'd.). 11 MWF	Jr., sr., grad. 9F	1, 113, and one other Jenks
119	3	The Family 11 TThS	Jr., sr., grad. 9F	9 credits Todd
120	3	Social Progress 11 TThS	Sr., grad. 9F	See bulletin statement Todd
123-124	3	Seminar in Anthropology.. (each) 2, 3 Th	Sr., grad. 205Lib	For sr. four corre- lated courses Jenks
201-202	2 or Ar	Research in Sociology..... Ar Ar	Grad. Ar	Graduate standing Todd
204	Ar	Sem. in Anthropology..... Ar Ar	Grad. Ar	Graduate standing Jenks

All of the above courses receive credit in the College of Education. For description see College of Science, Literature, and the Arts bulletin, pages 80-83.

INDEX

	Page		Page
Admission	10	Faculty	7-9
Admission to Practice Teaching..	22	Foreign schools	31
Advanced standing	12		
Afternoon and Saturday classes..	18	General information	10-11
Agreement, Normal Schools and		Geology	53-54
College of Education.....	26	German	56-59
Agricultural Education	22, 34	Graduates of Minnesota Normal	
Agriculture and Home Econom-		Schools	12
ics, credits allowed.....	22	Graduation with Distinction.....	16
Anatomy, Human	62	Graduate work in Education....	17
Animal Biology	41-42	Graduate students	20
Anthropology	85-86	Greek	59
Astronomy	42-43	Guidance in selection of courses.	20
Bachelor of Arts (in Education)	15	High School Training Department	
Bacteriology	43	Methods	33
Botany	44-45	High School Teacher Training	
		Departments	23-24
Calendar	5-6	High School Rural Training....	39-40
Certificates	13-15	History	60-62
First Grade Professional.....	13	History of Education.....	29
Required in Minnesota.....	13	Home Economics Education....	35-36
Special certificates	13	Human Anatomy	62-63
State Professional Certificates..	20	Human Physiology	63
University Teachers' Certificate.	13-14		
Chemistry	45-47	Kindergarten teachers	25
Class routine	12-13		
Commercial training	22-23	Latin	64
Comparative Philology	48		
Conditions	13	Manual Training	37-39
Coöperation with State Depart-		Methods Courses	32-33
ment	18	Mathematics	65-67
Courses of study.....	27-32	Military Science and Tactics....	67-68
		Music	68-69
Department of Agricultural Edu-		Philosophy	69-70
cation	22	Psychology	77-79
Department of Home Economics		Physical Education (men).....	70-71
Education	23	Physical Education (women)....	72-73
Drawing and Descriptive Geom-		Physical Education, teachers of..	36
etry	48	Physics	73-75
Defectives, teachers of.....	24-25	Political Science	76-77
		Practice Teaching	21-22
Economics	48-51	Principles of Education.....	29
Education, courses	27-32	Psychological Clinic	30
Educational Psychology	29-30	Public School Music.....	26
Employment bureaus	19	Public Speaking	79-81
English	51-53		
Explanation of requirements....	15-16	Regular students	11
Extension courses	18		



3 0112 105858036

	Page		Page
Regulations governing certificates	14-15	Summer Session	18-19
Religious Education	32	Teaching Assistants in Public	
Rhetoric	79-81	Schools	17
Romance Languages	81-84	Teachers of defectives	24-25
Scandinavian	84-85	Teachers in service	18
Scholastic requirements	12-13	Unclassed students	11
School Administration	30-31	Undergraduates	20
School Sanitation	31	University Teacher's Certificate	21
Sociology	85-86	University High School	10
Special training courses	22		
Summary of requirements	15		